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DECEMBER 27, 1919.

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Messrs Allen & Hanburys Ltd
in wishing their friends a
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would express the hope that the experience of the years of war applied to the problems of peace may enure to the advancement of the business and art of Pharmacy.

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Wright, Layman & Umney, Ltd.

MOST HEARTILY WISH
THEIR FRIENDS A

Happy Christmas

AND A

Prosperous New Year

Southwark, London, S.E. 1

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WE instituted our system of direct supply during the trying war period as a means of ensuring that every Retailer who approached us should receive at least moderate stocks of Glaxo. That system has served its purpose well, but as the result of extended experience, we are now convinced that it is better in the Retailer's interest for us to relinquish this work to the Wholesalers who so regularly and successfully undertake the service of distribution.

We say advisedly "in the Retailers' interest," because the transference of this branch of service will enable us to maintain larger stocks in all parts of the country, so permitting Retailers to obtain supplies more promptly, while we shall be left free to watch their interests more closely, to drive business to them, and to see that their profits are maintained and protected.

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7/6 ,,	**32** ,,	**72/-** ,,	**70/2** ,,	**68/4** ,,

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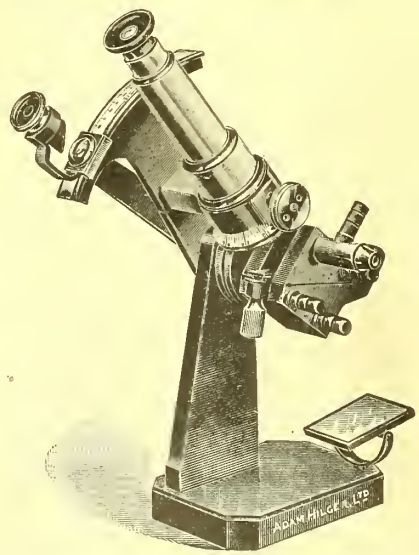
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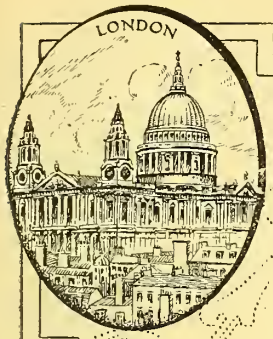
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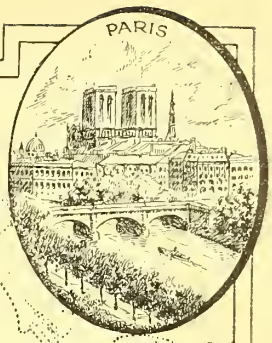
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Telephone: NORTH 1677—8.

Telegrams: "SPHERICITY, PHONE, LONDON."







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R. W. GREEFF & Co. offer at lowest prices the following products :—

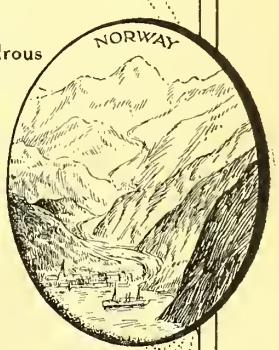
(WHOLESALE QUANTITIES ONLY)

Acetanilid	Guaiacol Carbonate	Potash Sulpho-Guaiacolate
Acetyl Salicylic Acid	Hexamine	Quinidine and Salts
Amidol	Homatropine	Quinine and Salts
Amidopyrin	Hydroquinone	Quinoidine
Barbitone	Ichthyol Substitute	Resorcin
Benzoic Acid	Kelene	Saccharin
Benzamine Hydrochlor	Lemon Oil	Salicylic Acid
Benzamine Lactate	Lithia Carbonate	Salicylate of Soda
Benzo Naphthol	Lecithin	Salol
Beta Naphthol	Menthol	Soda Benzoate
Bromides	Mercurials	Soda Hyposulphite
Calcium Lactate	Methylene Blue Medicinal	Soda Sulphite Anhydrous
Chloral Hydrate	Methyl Salicylate	Sugar of Milk
Cinchonine and Salts	Metol	Tannic Acid
Cinchonidine and Salts	Paraldehyde	Tannin Albuminate
Citric Acid	Peppermint Oil	Tartaric Acid
Cocain	Pepsine	Terpineol
Coumarin	Peptone	Terpine Hydrate
Creosote Carbonate	Phenacetin	Theobromine
Eucalyptus Oil	Phenazone	Thymol Crystals
Gallic Acid	Phenolphthalein	Vanillin
Glycerophosphates	Pyrogallic Acid	







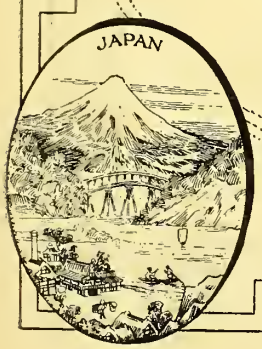


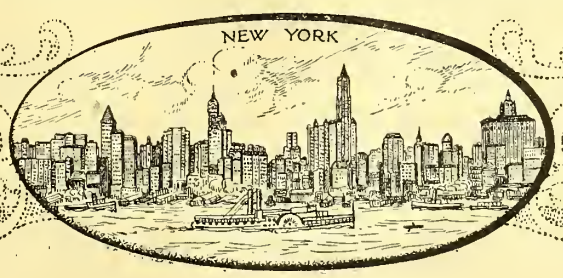
R. W. Greeff & Co.

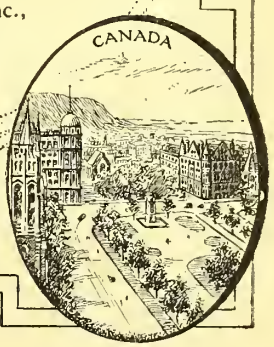
THAMES HOUSE, QUEEN STREET PLACE,
LONDON, E.C.4.

MANCHESTER BRANCH
Lloyd's Bank Buildings.
King Street.

NEW YORK AGENTS
R. W Greeff & Co., Inc.,
78, Front Street.







SCIENTIA DILIGENTIA

THE HOUSE
OF
BURGOYNE

takes this opportunity of expressing its appreciation of the generous support of its numerous friends at home and :: abroad during the past year. ::

We hope that all the joys of Xmas will be theirs, and that the New Year may be one of unalloyed Peace and :: :: Prosperity for all. :: ::

Burgoyne, Burbidges & Co.,
LIMITED.
EAST HAM——————LONDON, E.

Telegrams: "Zotalene, Phone, London."
Telephone: East Ham 686 (Four Lines).

Merriest Greetings for Christmas

and

Heartiest Wishes for the New Year

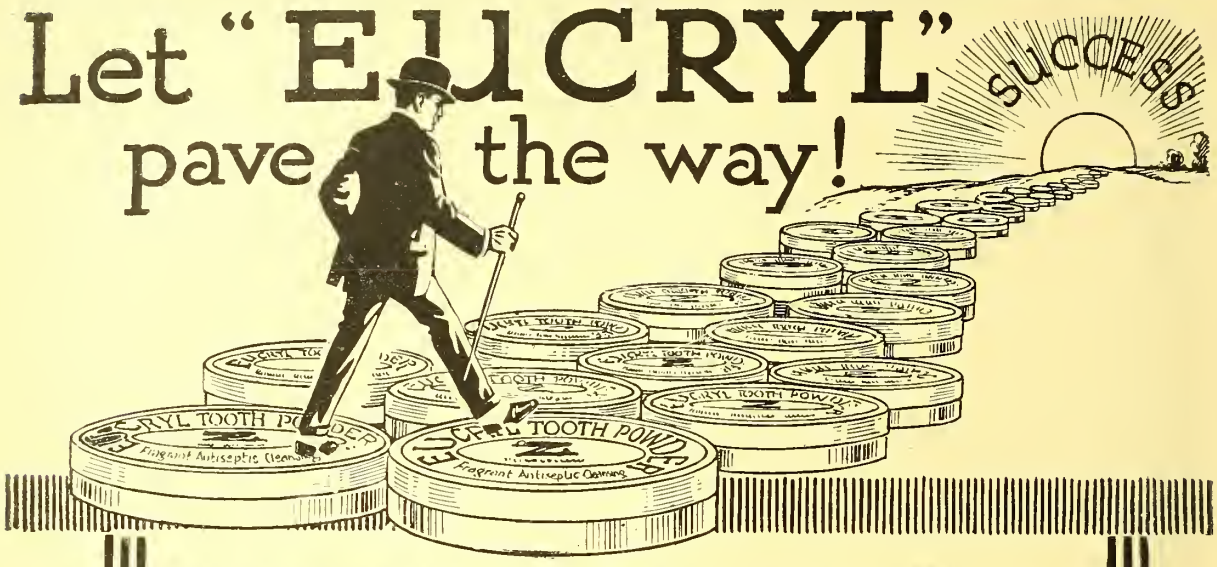
We look back on the years of war and know that so far as it was humanly possible we carried out our obligations to the Trade during that time of stress.

We look forward on what we hope will be years of Peace, with the certain knowledge that we can do better now than ever in pre-war days, and we therefore solicit with every confidence the continuation of your esteemed commands.

EDWARD COOK & CO., LTD.

The Soapery, BOW, E. 3.

Let "EUCRYL" pave the way!



to a substantial and ever-increasing Business in 1920. The Customer who is made through a "Eucryl Introduction" will remain on your Books as a permanent Buyer of Eucryl Productions. Eucryl Tooth Powder and Tooth Paste mean real sales for the Chemist who stocks them. They always spell Repeat Orders, and remember that every sale carries a guaranteed Profit with it—surely a Permanent Way to a successful Balance Sheet at the end of your Financial Year.

Greeting and Good Wishes to all our Friends. May 1920 bring you added Prosperity.

EUCRYL TOOTH POWDER & PASTE

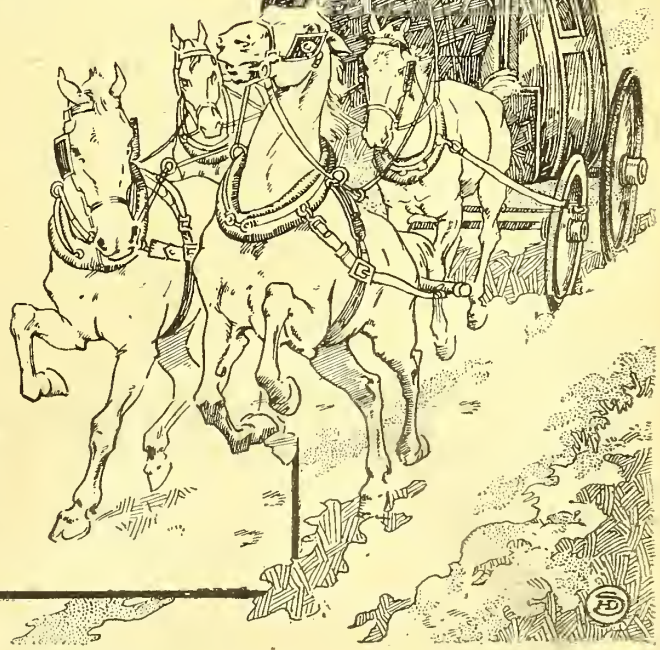
EUCRYL Ltd., 138 HIGH ST., BOROUGH, S.E.1

Maw's XMAS Page

No. 428 Dec. 27, 1919.

The Directors & Staff of the House of Maw send New Year Greetings to all their friends, with the sincere wish that *1920* may bring back the spirit of industry, diffusing through all classes unselfish prosperity and restoring social stability in every land.





S. MAW, SON & SONS, LTD
7-12, ALDERSGATE STREET,
LONDON, E.C.1, ENGLAND.

Estd 1807.

Maw's—"The House of the Moment."

The Season's Greetings

and the best of good wishes for

a brighter and more prosperous

New Year.

ROBINSON & SONS, LTD.

SPECIALITIES:

SURGICAL DRESSINGS,
CARDBOARD BOXES.

CHESTERFIELD & LONDON,

ENGLAND.

BAISS BROTHERS & COMPANY, Ltd.

A Retrospect.

The approaching close of the year seems a fitting opportunity to look back over this the 86th year of our life. We are glad to note it has been a *record year of trade* with us, and to cope with it we have remodelled and *considerably increased our manufacturing plant* and made full use of the additional premises we recently acquired.

In all Departments—Drugs, Pharmaceutical Preparations, Fine Chemicals, Surgical Instruments—we show progress, and we wish to thank our friends in all parts of the world for their confidence in us, and to assure them that our efforts are always directed to *a production and service* that will meet their every need.

PRICE LISTS IN VARIOUS LANGUAGES.

BAISS BROTHERS & COMPANY, Ltd.

Wholesale & Export Druggists, Manufacturing Chemists & Makers of Surgical Instruments.

Contractors to His Majesty's Government; the Crown Agents for the Colonies; various Foreign Governments; and the principal Hospitals and Institutions at Home and Abroad.

Grange Works, 174, 175, 176 GRANGE RD., BERMONDSEY, LONDON, S.E. 1.

Drug and Herb Farm—CARSHALTON, SURREY. Established 1833.

HIGH CLASS SURGICAL DRESSINGS

Twelve months ago

We decided to approach the Retail Trade direct as well as through the usual wholesale channels.

To-day

Despite predictions to the contrary, we find results attained are highly satisfactory, and we venture to hope that our action has been mutually beneficial.

At this time

We cordially thank the trade for the co-operation and assistance given during the difficult period of changing over from war work to normal trade, and we extend to one and all our hearty greetings

For the New Year

We wish the trade the greatest prosperity and success, to which we hope we may have the honour of contributing.

ROBERT BAILEY & SON,
SURGICAL DRESSING MANUFACTURERS,
MARRIOTT STREET MILLS, STOCKPORT.
CABLES UNDISPUTED, STOCKPORT. CODE A.B.C 5TH EDITION.

A Shiver down the Spine

PAGE 15 AYRTONS

"**That heavy feeling,** with a Shiver down the Spine; an ache in every move; a touch of Sore Throat; a parched palate, and a hot head that won't work—that's the 'FLU!"

This is part of the Showcard matter for our COLD CURE TABLETS, and there is an illustration which tellingly pictures the shiver-down-the-spine phase of the 'Flu.

With each one-gross order for Cold Cure Tablets in our decorated tin series we are sending 3 Showcards free of charge, in accordance with our custom.

Cold Cure Tablets

20 tablets in tin - per doz. 4/9; per gross, 54/-
40 „ „ - „ 8/6; „ 99/-

This week's One-Sale-More point:
sell a bottle of
Breath of the Pine
with every tin of Cold Cure Tablets.
Per doz. 6/9; per gross, 79/-

AYRTON, SAUNDERS & CO. LTD.
LIVERPOOL

TRADE MARK

To our Friends

Hearty Greetings & Best Wishes


MR. J. LITTLEJOHN.


MR. A. ARTHUR.


MR. E. WOODHEAD.


MR. ARTHUR BERTON, Governing Director.


MR. R. S. CATLOW, Director.


MR. A. WESTLAND.


MR. J. H. CATLOW, Director.


MR. H. BERTON Managing Director.


MR. P. HAYWAR


MR. W. WELSH


MR. J. FERGUSON.


MR. A. W. COSTER.

From the Directors, Departmental Managers,

ARTHUR BERTON, LTD.

TRADE MARK.

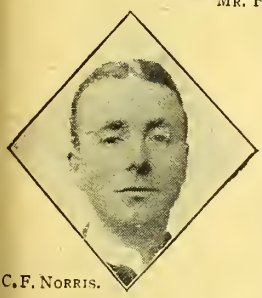
at Home & Abroad

or a Happy and Prosperous New Year


MR. F. W. LE GROVE.


MR. F. RUSSELL.


MR. S. M. KINNEAR.


C. F. NORRIS.


MR. D. HARRIS.


MR. F. TOUGH.


MR. F. J. COWDEROY.


MR. R. CAIRNS.


MR. E. D. TOMLINSON.


MR. A. F. DAVIES.


MR. H. CURTIS.


MR. H. A. FORDHAM.


MR. H. W. FISHER.

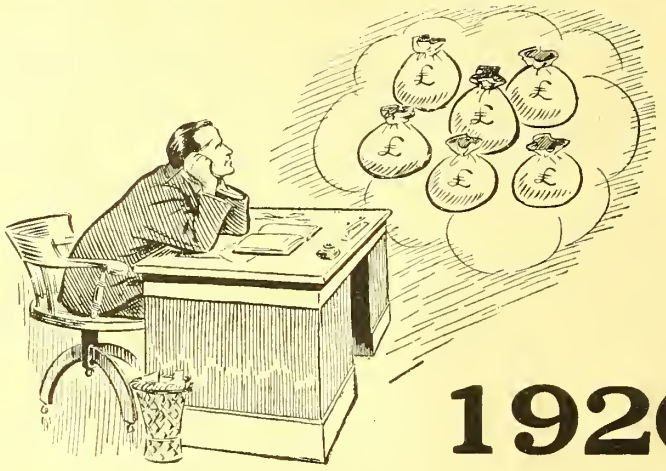

MR. J. A. LOTHIAN.


MR. A. HENDERSON.


MR. J. BEAMAN.

and Representatives of

London, Manchester and Glasgow



1920

The Dream and the Business

JANUARY first—observe the Day of Resolves, for truly "Irresolution is more opposed to virtue than vice."[1]

Resolve now to join Ucal—serenely confident that "Whenever we pass from irresolution to resolution there is progress,"[2] and that "Every man has power to carry out that of which he is convinced."[3]

Join Ucal, and make that Dream of bigger, better business come true.

1. La Rochefoucauld. 2. Benedetto Croce. 3. Goethe.

Ucal
The Sign of Reliability

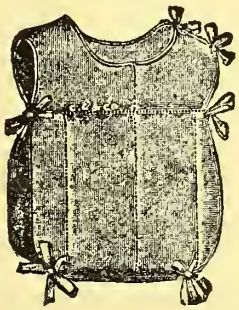
UCAL, CHELTENHAM.

C&Co Ltd TRADE MARK

The most seasonable line

"ZUDOR" JACKETS

The original anti-pneumonia jacket



Made in six stock sizes.
Any special size made to order.

SHOWCARDS
AND
ADVERTISING MATTER
SUPPLIED
WITH EACH ORDER.



Facsimile of Showcard.

IN TWO QUALITIES.

No.	Across Chest.	Shoulder to waist.	Cotton Wool Per doz.	Retail each.	Lamb's Wool Per doz.	Retail each.
1.	8 in.	6 in.	9/6	1/3	16/-	2/-
2.	10 in.	8 in.	12/-	1/6	20/-	2/8
3.	12 in.	10 in.	16/6	2/-	24/-	3/4
4.	15 in.	12 in.	20/6	2/6	28/-	4/-
5.	19 in.	13 in.	25/-	3/-	32/-	5/-
6.	21 in.	15 in.	30/-	3/9	40/-	5/6

Owing to the large calls for "Zudors"—we shall be glad if our customers will send their orders as soon as possible.

CUXSON, GERRARD & Co., Ltd.

OLDBURY, near BIRMINGHAM.

Christmas Greetings and Good Wishes for the New Year.



Licoricine
ACTS LIKE MAGIC

FOR

COUGHS & COLDS,

BRONCHITIS, WHOOPING COUGH, and all CHEST and THROAT AFFECTIONS.

ESTABLISHED OVER 50 YEARS.

A Popular Remedy wherever introduced. Now is the time to get in your Stock.

MANDALL & CO. Ltd.

Tower Works, Newcastle-on-Tyne.

National Telephone; 143 Central.

EC

With Hearty Greetings to Our Many Friends in the Trade from the Elliott Optical Company

(Propr., Guy E. Druiff)

104/5 Gt. Saffron Hill, London, E.C.1.

Christmas 1919.

ZEAL'S REGISTERED

Clinical Thermometer

The "REPELLO"

Requires no shaking down. *Guaranteed Accurate.*

Good Selling Lines for Chemists

A 30-Second Pushed back in an Instant.



NEW IMPROVED LENS FINDER

The only Easy Reading Magnifying Clinical Thermometer on the Market.

IN FOCUS.





OUT OF FOCUS.

The square mark engraved on lens front locates the Mercury column immediately.

SPECIAL AWARD AND GOLD MEDAL, NEW ZEALAND, 1907.
SILVER MEDAL, INDIA, 1909. SILVER MEDAL, LONDON, 1913.

G. H. ZEAL, 82 Turnmill St., LONDON, E.C.

Wholesale Manufacturer of

CLINICAL THERMOMETERS.

CONTRACTOR TO H.M. GOVERNMENT.

Established 1888. Telephone No.: 12498 Central.

Telephone : London Wall 9020.
Telegrams : "Lonabarc, Ave, London."

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LONDON, E.C. 2.

LONABARC TRADING COMPANY
LIMITED

BEG ALL THEIR BUSINESS FRIENDS

TO ACCEPT THE

COMPLIMENTS OF THE SEASON

AND THE WISH THAT THE

COMING YEAR

MAY BE THE MOST SUCCESSFUL THEY HAVE EXPERIENCED.

PURE SPANISH ESSENTIAL OILS

CERTIFIED PURE BY

LANZONE

ADEPS LANÆ B.P.

THE INSTITUTE OF HYGIENE.

Make sure of regular supplies for 1920 by placing your Orders with

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THE PHARMACEUTICAL LANOLINE CO.

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WHO INVITE INQUIRIES.

AMERICAN
ESSENTIAL OILS

"MOHAWK" BRAND
OIL PEPPERMINT (Natural)

OIL CEDARWOOD — OIL HEMLOCK
OIL CEDARLEAF — OIL BIRCH

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Vanillin C.P.
Coumarin C.P.
Oil Wormseed, American.
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U.S.P.

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Essential Oils, Chemicals and Drugs,
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Cables—"MAGLAUR."

G. W. SPARKE,
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LONDON, W.C.2
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99½ per cent.
TALCUM POWDER
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ITALIAN OLIVE OIL
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GENUINE AMERICAN
PEPPERMINT OIL
"Columbia" Natural
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Re-distilled.
Finest qualities for Druggists, Distillers and Confectioners.

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DRUGS, CHEMICALS (Fine Photographic), HERBS, ROOTS and LEAVES, ESSENTIAL OILS, PERFUMERY, Aniline Dyes.
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LAVENDER (French), SPIKE LAVENDER (French and Spanish)
NEROLI, GERANIUM (African and Bourbon), SANDALWOOD, PETITGRAIN (French and American),
VETIVER (Java and Reunion), ROSEMARY, BOIS DE ROSE FEMELLE, YLANG, &c.
ORRIS CONCRETE and LIQUID.
ESSENCES, SOLIDES and LIQUIDS from flowers. RESINOIDS and POMADES.
We have Stocks in London of the most important Essential Oils and Perfumery Products.

JUSTIN DUPONT, Argenteuil (S. & O.), France
Makers of SYNTHETIC PERFUMES
and some of the finest original odours extant, for Sachets, &c.

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Wholesale Houses only supplied.



50% Profit

A Xmas Card for every Chemist

EVERY penny invested in the stocking of SANAGEN brings back a 50 % dividend—a useful Profit-leaven in every Chemist's business.

SIZES AND PRICES—2-oz., 2/–; 4-oz., 3/–; 8-oz., 5/–; 16-oz., 9/6

EVERY first sale of SANAGEN is the fruitful seed of continued sales.

SALES-HELPFUL Counter Literature, Showcards, etc., sent Carriage Paid on request.

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AWARDED GOLD MEDAL AT INTERNATIONAL MEDICAL CONGRESS, LONDON, 1913.

Sanagen

THE BRITISH NERVE FOOD

SUBROSA



The Perfect Substitute :: for :: Otto of Rose



THIS beautiful product represents with a fidelity hitherto unattainable, the true odour of natural Otto of Rose, for which it is offered as an economical substitute, only equalled in delicacy and sweetness by the virgin Otto. Pharmacists are invited to compare the permanence of Subrosa with that of the virgin Otto or any artificial Otto of Rose.

The best form of test is to place a drop of each otto on a separate strip of filter paper and compare the odours at intervals. Hasty conclusions should always be avoided, as a poor, weak, natural otto or useless substitute will often give a transient fragrance sufficient to mislead even the expert, and unless the test sample shows a growing improvement hour by hour it is certain to be unprofitable in use. Subrosa will stand this drastic test as well as the best natural otto.

Subrosa is sold in 1-oz., 4-oz., and 8-oz. bottles, price 20/- per oz. net. Samples sent to any pharmacist on request.

THOMAS KERFOOT & Co LTD.
BARDSLEY VALE, LANCASHIRE,
& Bardsley House, London, N.1
ESTABLISHED 1767.

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LONDON, 1881. VIENNA, 1883. CALCUTTA, 1884.
CHICAGO, 1893.

SYNTHETIC

OTTO OF ROSE.

"ZINYL" BRAND (Regd.)

THIS is an actual synthetic product, not a mere mixture of essential oils, replacing Bulgarian and French rose products, since it has the characteristics of both.

The "ZINYL" Brand passes the most discriminating tests, even the test of taste. It has the sweet honey-like taste and odour of genuine otto, and is much stronger, yet costs but a fraction of the price.

For all branches of Perfumery, it is absolutely indispensable.

A single trial will prove convincing, and comparison is invited with other leading Synthetic Ottos.

Present Price - - 21/- per ounce.

SPECIAL FOR QUANTITY.

Full list of Synthetic Ottos on application.

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40 years' experience at your service.

SICILIAN

LEMON - BERGAMOT
ORANGE - MANDARINE.

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THE OILS THAT HAVE A LONG REPUTATION FOR QUALITY.

In the manufacture of our Terpeneless Oils it was imperative that we secured the very finest Sicilian Oils to work upon. After several exhaustive tests we came to the conclusion that "SPINELLI" brand of Sicilian Oils gave us the best results. As we were able to place large orders for our own needs with the manufacturers, we have pleasure in stating that they have entrusted us with their British Agency, and we offer to users of Sicilian Oils the benefit of our experience. There is quality in every package. Guaranteed Genuine Oils of authentic origin, and to conform to any analysis as to purity.

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Western Union.

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Telephone: HOP 898.

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BRITISH MADE.

We manufacture exclusively ourselves all kinds of Terpeneless Oils, and invite inquiries from users throughout the World.

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Anise (Anethol)
Bay
Bergamot
Caraway
Cassia
Cinnamon
Clove
Dill
Geranium
Ginger
Juniper Berry
Lavender
Lemon
Limes
Mandarin
Nutmeg
Orange
Peppermint
Petitgrain
Rosemary

CINNAMIC ALDEHYDE

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The Advertising behind ZENOBIA

THE distinctive advertising which is appearing in journals of importance is creating a steadily increasing demand for ZENOBIA Perfumes. The ZENOBIA Perfumes are the last word in true flower fragrance.

ZENOBIA
CONDENSED PERFUMES

Retail prices are 3/-, 6/-, and 12/6 per bottle, whilst trade prices are 27/-, 54/-, and 108/- per dozen, less usual discount.

You should share in the prosperity brought by ZENOBIA merits and ZENOBIA advertising by ordering sufficient supplies to meet future demands.

ZENOBIA, LTD.
Wholesale Manufacturing and Export Perfumers,
LOUGHBOROUGH, ENGLAND.

The PREMIER PERFUMERY
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We have the finest stock ready for delivery of

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Face Creams
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Over a hundred lines made from the very best materials and showing large profits to retailer.

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70/80 %

CASTILE SOAPS
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PRICES IN THE PRIMARY MARKETS ARE HIGHER THAN SPOT QUOTATIONS

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TOOTH PASTE

"STRONG" OR "MILD"

The Super Paste

If your wholesaler has not sent you sufficient advertising matter for window display, drop us a postcard and we will send you a good assortment, post free.

SOLE MANUFACTURERS & PROPRIETORS:
A. & E. CARRERAS, *Perfumers,*
Offices : 207 King St., Hammersmith, London, W.6.

Telephone :
HAMMERSMITH 600
Telegrams :
"ESOLINDOL, HAMMER, LONDON."

The Tooth Paste with the Odol flavour.

Anglodol

Dental Paste

A Perfect Dentifrice.
Pleasant to the taste.
Profitable to the Retailer.

Retail Price, 7½d. and 1/3.

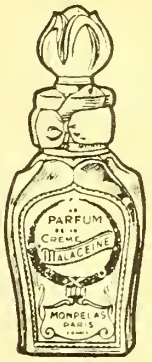
Window display terms on application.

ANGLODOL, LTD., BERKHAMSTED.

Telephone : BERKHAMSTED 138. *Cables and Telegrams :* "ANGLODOL BERKHAMSTED."



MALACEÏNE



MALACEÏNE PRODUCTS

Manufactured by

"PARFUMERIE MONPELAS"

PARIS.

No.		Per Doz.	Retail Price P.A.T.A
62	Crème Malaceïne, Small size	15/-	1/9
63	,, ,, Medium size	30/-	3/6
64	,, ,, Large ,, ...	50/-	5/6
67	Poudre Malaceïne, Small ,, ...	25/-	3/-
68	,, ,, Large ,, ...	35/-	4/-
71	Malaceïne Toilet Soap	21/-	2/6
75	,, Perfume, each bottle in case	70/-	8/-
76	,, ,, loose	65/-	7/6
78	,, Shaving Soap	21/-	2/6

SPECIAL TERMS FOR HOME TRADE

Small quantities ... ... 7½ % 1 Month.
£5 lots and upwards, 5 % Invoice and 7½ % 1 Month.

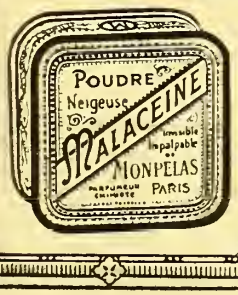
A £5 SAMPLE ORDER

	Will Cost You		*Will Realise*	
	s.	d.	£	s.	d.
1 doz. No. 62 Cream	15	0	1	1	0
½ doz. No. 63 Cream	15	0	1	1	0
¼ doz. No. 64 Cream	12	6	0	16	6
½ doz. No. 67 Powder	12	6	0	18	0
½ doz. No. 68 Powder	17	6	1	4	0
½ doz. No. 71 Soap	10	6	0	15	0
¼ doz. No 76 Perfume	16	3	1	2	6
½ doz. No. 78 Shaving Soap	10	6	0	15	0
	£5	9	9	£7	13	0
5 % ...	5	6			
	£5	4	3		
7½ % ...	7	10			
	£4	16	5		

OR NEARLY 60 % PROFIT.

Showcards and Booklets Supplied.

An extensive Advertising Campaign in all the principal Society Journals is now proceeding.



Sole Wholesale Agents for Great Britain and Ireland—

WILLIAM TOOGOOD LTD.
77, SOUTHWARK ST.
LONDON, S.E.1.



Special Offer to introduce

CRÊME RAYMET

A perfect non-greasy vanishing cream, most attractively packed and delightfully perfumed—Crême Raymet makes an irresistible appeal to all those who value their complexion.

OUR OFFER : With each dozen Crême Raymet (28/- per dozen) ordered prior to December 31, we will send, free of charge, 100 dainty perfumed pocket calendars, printed with your name and address.

M.R.P.
3/6
a
Pot.
▪
28/-
per dozen.



M.R.P.
3/6
a
Pot.
▪
28/-
per dozen.

The illustration shows the style of packing—a dainty fawn-coloured earthenware pot, holding about 2-oz.—finished off with blue ribbon and attractive label in several shades of blue—each ¼ dozen in a "sales-compelling" show outer.

Crême Raymet is certain to become popular with your better-class customers—the cream is a really good one with a most fascinating perfume, and can be recommended with confidence—the profit is good, 1/2 on each pot sold.

Why not try a dozen in your Christmas window—they will add to its attractiveness—a postcard will bring them, together with the pocket calendars.

Raymet & Co., Ltd., 507-509 Harrow Road, London, W. 10.

POUDRE NILDÉ

in the sifter box

Appeals irresistibly to every woman. The quickest selling line of face powder ever shown.

Minimum Selling Prices:

POUDRE NILDÉ

in the sifter box.

SMALL SIZE, for the handbag -	1/-
LARGE SIZE - - - - -	3/6
Leather or fancy silk vanity cases, small size, with mirror - - - - -	5/-
LARGE SIZE - - - -	10/-

ROUGE *INVISIBLE* NILDÉ

in the sifter box.

SMALL SIZE - - - - -	1/6
IN LEATHER CASE - - -	5/6

SHOWS YOU 33⅓% PROFIT.

Through your wholesale house.

EACH BOX CONTAINS A PUFF

NILDÉ, PARIS

British & Colonial Agents: 8 Blenheim Street, London, W. 1.



B



The

HENNA CULT

of Hair Beauty, based on the famous

EVAN-WILLIAMS

ORIGINAL

HENNA SHAMPOO

daily extends its boundaries, and is now a subject for popular journalism.

It pays to sell this famous line.

You will find full details of the profits realised in the October issue of "THE SHAMPOO SALESMAN," a copy of which is gladly sent on request.

Be sure to order

THE EVAN WILLIAMS ORIGINAL Henna Shampoo

Wholesale only:
THE EVAN-WILLIAMS CO., LTD.
18 Ogle Street - LONDON, W. 1.

Showcards draw Trade



No. 3A.

WE advertise to the general public thereby creating the demand. By displaying showcards in your window and shop you indicate that *you* stock the goodsrequired. We will gladly send a supply of the card illustrated if you write on your business notepaper stating the number required and also the showcard number.

Anzora Cream—for slightly greasy scalps—and Anzora Viola—for dry scalps.

Of all Wholesalers.
Trade Terms on application.

ANZORA PERFUMERY CO.
Willesden Lane, London, N.W. 6

ANZORA

Masters the Hair.

IMPORTANT.

WILL Retail Chemists kindly note that ORISAL MOUTH WASH for PYORRHŒA is now prepared only in a highly concentrated form at **4/9** per bottle retail, the contents being four times the strength of those hitherto retailed at **2/9**.

WHOLESALE PRICES.

Mouth Wash (including Govt. duty, 12/-) **48**/- per doz.; Retail **4/9** per bot.

Dental Paste (including Govt. duty, 6/-) **23**/- per doz.; Retail **2/3** per tube.

Obtainable from the principal wholesale houses, or direct from

ORISAL LTD.

77 GEORGE STREET, PORTMAN SQ., W. 1.

INCREASING POPULARITY OF "HARLENE HAIR DRILL."

EVERY DAY EMPHASISES THE NECESSITY FOR MEETING THE PUBLIC DEMAND.

The widespread publicity initiated by the Proprietors of "Harlene" over a number of years and vigorously maintained right up to the present time, in spite of many difficulties and increasing expense, continues to draw an immense response from all parts of the country. Thousands of sample parcels are dispatched daily, thus increasing the number of possible customers to retail stores everywhere.

HAVE YOU A GOOD STOCK OF "HARLENE HAIR DRILL" PREPARATIONS?



NOTE—The Contents of the Free HARLENE OUTFITS Comprise:

1. A Trial Bottle of Harlene.
2. A "Cremex" Shampoo Powder.
3. A Trial Bottle of "Uzon" Brilliantine.
4. Book of Instructions.

FOLLOW THE TIDE OF SUCCESS.
Watch the great Free Gift Advertising Campaign that brings the Customers to your shop.

No Chemist or Store can afford to be without this unique line of Toilet Preparations.

"HARLENE" FOR THE HAIR — "ASTOL" FOR GREY HAIR
"UZON" BRILLIANTINE — "CREMEX" SHAMPOO POWDERS
"ASTINE" VANISHING CREAM — "ASTINE" SHAVING STICK
"ASTINE" TOOTH CREAM — "ASTINE" NAIL CREAM
"ASTINOL" AROMATIC FLUID.

For Particulars, Advertising Literature, &c., write to

EDWARDS' HARLENE, Ltd.

20, 22, 24 and 26 LAMB'S CONDUIT STREET, LONDON, W.C. 1.



A Medical opinion of DULC-O-DO.

"I have tried Dulc-o-do in cases of excessive perspiration of feet, axilla, etc., and it has succeeded after Formalin, Belladonna, etc., have signally failed. I myself have suffered from excessive perspiration in the axilla, due to Malaria, which I got in India several years ago. I have also tried it, and it has completely relieved the condition. It seems to me a most excellent preparation."—Dr. H— M.B. Ch. B.

Mr. PHARMACIST!

We have many customers in your district who write us in this style:

Dear Sirs,—Kindly send me two more bottles of Dulc-o-do. I may say it is the finest thing I have ever tried. It should be better known, as there are so many useless preparations sold for this purpose.

Yours truly, S. M.

DULC-O-DO is a harmless toilet water which corrects excessive perspiration, makes dress shields unnecessary and instantly removes its odour. Well advertised in ladies' papers. May we add your name to our depot file and direct all inquiries from your locality to you.

Send **20/-** for sample dozen, showcards and best terms. Minimum retail **2/6**

SCOTT'S CHEMICAL CO.
47 Huddlestone Road,
Willesden, London, N.W.2

Dulc-o-do

The Harmless Toilet Water for EXCESSIVE PERSPIRATION



"Jackel's Cream"

(without Grease)
for THE HAIR
Sold everywhere

Established 1883.



"Jackel's Cream" fixes the hair in any desired position; is unexcelled as a dressing and does not soil the headware. It removes Scurf and Dandruff, keeps the scalp healthy, and promotes the natural growth of the hair while maintaining its softness and brilliancy.

Prices for Wholesale and Export Houses on application.

Jackel et Cie (of Paris) Ltd.
Sauchiehall Street
GLASGOW

CRYSTALLISED CREAM
1/6 2/6

Trade Mark attached to each bottle.

"SOFTO" Tablets

for Chapped Hands and Tender Feet.



The Line that SELLS!

Retail Price - 2d.

Wholesale 12/- per gross.

"Softo" Shampoo Powders

Retail Price 2d. (7 for 1/-).
Wholesale 9/6 per gross.

"SOFTO" FACE POWDER

Three tints—White, Pink and Cream.
Retail 6½d.
Wholesale: 1 dozen, 4/6; 3 dozen, 12/-
1 gross (with 4 dozen bonus) 50/-
Net. Carriage Paid.

SOFTO MANUFACTURING CO.
33 Edgware Road, London, W. 2.

DEARBORN

LIMITED

37 Gray's Inn Road, LONDON, W.C.

Toilet Specialities.

	Price per doz. to Retailer.	Selling Price P.A.T.A.
PILENTA SOAP - A complexion soap.	10/-	1/-
PROLACTUM - - For the lips.	10/-	1/-
PARSIDIUM JELLY - For wrinkles.	10/-	1/-
ALLACITE of ORANGE BLOSSOM A dressing cream.	22/6	2/6
BORANIUM - - A hair tonic.	22/6	2/6
CLEMINITE - - For a face lotion.	22/6	2/6
COLLIANDUM - - For a face tint.	22/6	2/6
PERGOL - - - A deodorant.	22/6	2/6
STALLAX - - - For a shampoo	22/6	2/6
JETTALINE - - For clearing the skin.	31/6	3/6
PHEMINOL - - A depilatory.	36/-	4/-
MENNALINE - - For the eyelashes.	36/-	4/-
MERCOLIZED WAX A face cream.	31/6	3/6
STYMOL - - - For oily complexions and blackheads.	36/-	4/-
BARSYDE - - - Dandruff eradicator.	22/6	2/6
TAMMALITE - - For grey or faded hair.	22/6	2/6
LIQUID PERGOL - To check excessive perspiration locally.	31/6	3/6
BICROLIUM - - For whitening the hands.	22/6	2/6
HARAPOSA - - - Nut oil shampoo.	22/6	2/6

STOCKED BY ALL WHOLESALE HOUSES

COLONIAL DEPOTS AND AGENCIES.

AUSTRALIA:
ALL WHOLESALERS and
DEARBORN, Ltd., Grace House, Clarence Street, Sydney.

SOUTH AFRICA:
LENNON & CO., Ltd. (Cape Town)
SIVE BROS. & KARNOVSKY Ltd. (Johannesburg)

INDIA:
KEMP & CO., Ltd. (Bombay).
R. MACLURE (Madras).
SMITH, STANISTREET & CO. (Calcutta).
MEHTA BROS. (Calcutta).
JAMNADAS BROS. (Bombay).

NEW ZEALAND:
SHARLAND & CO., Ltd. (Auckland & Wellington).

SOUTH AMERICA:
DEARBORN, Ltd., Calla Salta 264, Buenos Aires.

WHERE THE TUBES GO.

Why, to the homes of the women who know the best "COLD CREAM" available, and to the shelf before the shaving mirror of the man who has learnt by experience the value of a soft, supple and comfy skin before and after shaving.

CHRISTY'S COLD CREAM

THE KIND THAT NEVER GOES RANCID

The Christy Cold Cream lesson was first learnt by educative and persuasive Press Advertising, whilst the quality, whiteness, blandness, emolliency and other unique virtues

MAKE REPEATS SURE.

Send for this EXTRA SPECIAL

OFFER.

WE WILL SEND

8 doz. No. 7. P.A.T.A. 8½d. at 5/- doz.,
6 doz. No. 9 P.A.T.A. 1/- at 7/- doz.,
packed in the attractive "two-green" label and carton, in half-dozen cartons, along with Showcard: "BEAUTY IN THE MAKING."

CARRIAGE PAID.

(Available for one week from date of issue.)

THOS. CHRISTY & CO.,
4-12 Old Swan Lane, E.C. 4.

Gibbs' Series of Toilet Preparations now consists of:

	Retail Price
GIBBS' SHAVING SOAP—Cold Cream, in enamel sticks	7d. & 1/-
In nickel sticks...	1/3
GIBBS' DENTIFRICE, in aluminium cases	6d. & 1/3
Refills for 1/3 case	10d.
In tubes for those who prefer a paste ...	1/- per tube
GIBBS' COLD CREAM FOAM (a Vanishing Cream) ...	1/- per jar
GIBBS' COMPLEXION CREAM, in tubes	1/- per tube
GIBBS' TALCUM POWDER, in flasks	1/- per flask
GIBBS' SHAMPOO POWDERS—In boxes of five 3d. pkts.	1/-
GIBBS' CRYSTALLISED BRILLIANTINE	
In enamelled metal boxes	1/-

The whole of this Series is eligible for the "John Bull" National Window-Dressing Competition.

All the above are well advertised and show you splendid profits.
Write for our Price List if you have not received one already.

D. & W. GIBBS, LTD., London & Paris.



"I sell more 'Quin-Quenna' than any other advertised line, and I like selling it because it gives a better margin and the people are live and progressive. I like your new 'Blue Card,' it's good!" *(London, S.E 6.)*
This speaks for itself. Send to THOS. CHRISTY & CO., 4/12 Old Swan Lane, E.C. 4., for 6 doz. and 1 doz. Bonus. Carriage Paid.

Your Profit 4/- per doz. ➡ Per Pkt. 6d. 43%

Quin-Quenna BETTER THAN A SHAMPOO

FACE CREAM. TOOTH POWDER. NAIL POLISH
„ POWDER. „ PASTE. HAIR CREAM
BRILLIANTINE, Solid and Liquid. PERFUMES
VIOLET POWDER. TALCUM. TOILET OATMEAL
SHAMPOO POWDER & LIQUID. MASSAGE CREAM

Your own formula prepared, or we can supply ingredients if desired.
Send for samples and quotations.

A. CONNELL & CO., 3 Jewry Street, LONDON, E.C. 3
PHONE—AVENUE 1945.

DECOLTENE The liquid hair remover. The intelligent depilatory. Simple, safe and effective. Can be used while performing the toilet.



Dinkie The Dainty Deodorant. The greaseless cream that takes all odour out of perspiration. Packed in attractive opal jars.

DIADEM Crême Rouge Gives a natural colour to the cheeks. Far more convenient in use than dry rouge. Easily removable.

DIADEM Face Powder Adheres readily to the skin. Made in Blanche, Naturelle, Rachel, Rose and Sunburn tints. In large artistic boxes, in distinctive style.

DIADEM Eau de Cologne. A Perfume of most exquisite fragrance. Cooling, lasting and refreshing. In handsome sprinkler bottles.

DIADEM Vanishing Cream A cream of rare purity and charm, put up in novel white globes and packed in dainty boxes in attractive style.

DIADEM WAX For the Complexion. Completely supersedes the customary greasy Toilet Creams. Pleasant in use and commands ready sales. In elegant large jars.

DIADEM Talcum Powder The ideal powder for Nursery and Toilet. Choicely perfumed, and may be used with impunity on the most sensitive skin.

TRADE TERMS.

		P.A.T.A.	Trade per doz.
Decoltene Depilatory	.. ..	3/9 ..	30/-
Dinkie Deodorant	.. .. ..	2/6 ..	20/-
Diadem Face Powder	.. ..	2/6 ..	20/-
,, Complexion Wax	.. ..	2/6 ..	20/-
,, Crême Rouge	.. ..	2/6 ..	20/-
,, Vanishing Cream	.. ..	3/9 ..	30/-
,, Talcum Powder	.. ..	1/3 ..	10/-
,, Eau de Cologne	.. 1 oz.	1/9 ..	14/-
,, ,, ,,	.. 2 oz.	3/3 ..	26/-
,, ,, ,,	.. 4 oz.	6/- ..	48/-

NOTICE.

Artistic Showcards and Counter Matter free on request.

Robartes' Preparations are obtainable from all leading wholesale houses.

Largely advertised in all the leading dailies, weeklies and monthlies.

Further particulars and descriptive booklet forwarded on request.

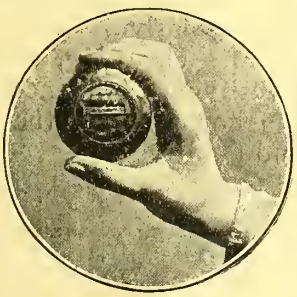
ROBARTES, Ltd., Dyer's Buildings, Holborn Bars, London, E.C.I.

MOUSLEY'S "BEAVERPUF"

Patent Nos. 4931 and 4932.

The Ladies' Natty Friend.

B. quality Brown Fur 3/11 each.



G. quality Grey Fur 4/6 each.

Additional Powder Bags, 6d. each.

Just out. Demand great.
Delightfully soft in use.
Superior to artificial Puffs.
Write for Prices and Terms

F. A. MOUSLEY

(MAKER)

Priest Bridge, Mortlake, London, S.W.14

GOOD PROFITS ON KEENOLIA SPECIALITIES

				Trade Price	M.R.
Chilblain Balm				11/-	1/3
In three size as advertised.			...	15/-	1/9
				21/-	2/6
Hair Cream	4 oz.	7/-	8 oz.	12/-	per doz.
Toilet Paraffin	4 oz.	9/-	8 oz.	13/-	,,
Bay Rhum	4 oz.	8/-	8 oz.	12/6	,,
Eau de Quinine	4 oz.	9/-	8 oz.	13/-	,,
Brilliantines	1½ oz.	6/-	2½ oz.	7/6	4 oz. 10/-

Special Prices for quantities on application to the Manufacturers:

Ormside Chemical Co., Ltd.,

57 POLAND STREET, LONDON, W.1

TRADE MARK

"VASELINE" PREPARATIONS AND RELIABILITY

"VASELINE" Petroleum Jelly when used in Ointments contains more of the desired elements necessary for a universal base than any other known substance. It has emollient, antiseptic, healing and protective qualities in itself, is not easily acted on by chemicals, and where properly protected from air and light, does not change. Also, when incorporated with other medicaments they are not injured by the action of the base. These conditions have long been recognised by the leading Physicians, Surgeons and Pharmacists throughout the world. Animal and vegetable fats, on the other hand, are subject to change forming various compounds which destroy the end for which they were intended.

"Vaseline" is the Registered Trade Mark of the

CHESEBROUGH MFG. CO. (Cons'd.)

42 Holborn Viaduct - LONDON, E.C.1

Complete Price List of all the "Vaseline" Preparations will be sent post free on application.

Please Note Alteration in ADDRESS.

Cold Cream

IN POTS, TINS, OR BULK.

ABSOLUTELY DEPENDABLE.
BRINGS REPEATS EVERY DAY.

Lavender Ice

FOR CHAPPED HANDS

A QUICK WINTER SELLER.

ALSO

Lanoline Cream, Lip Salve, Camphor Ice, Tooth Powders, Brilliantines, &c.

Samples free on application to

The Casson Chemical Co., Ltd.,
NEWTON RD., WESTBOURNE GROVE, W.2
Phone: Park 2884.

Profit by the Growing Demand *for* Snowfire.

Large numbers of women doing outdoor or indoor work are buying Snowfire regularly. They have discovered its cleansing, softening and beautifying influence upon the skin—how it keeps the hands white and dainty.

Snowfire

Sells freely all the year round. Specially valuable in Winter for Chapped Hands, Cracked Lips, or Roughened and Irritated Skin.



Well advertised. Shows good profits. Attractive publicity matter free. Goods carriage paid to your door. For Price List write

F. W. Hampshire & Co. Ltd.
RIVERSIDE WORKS. DERBY

LAMP-BLOWN ARTICLES

SUCH AS

Test Tubes, Ampoules and Vials.

We have the greatest pleasure in intimating that not only are we making the above articles, but have every facility for reasonably quick delivery.

We also feel a pardonable pride in being able to train wounded soldiers for some of this work, and who are imbued with the ideas and high standard these productions demand.

We also have large stocks of Medicals, Kalis, Limes, Vials and Perfumery Bottles. We can always fix you up with something from stock.

JULES LANG & SON, Charlton Works, Charlton Place, ISLINGTON, LONDON, N.1.

Telegraphic Address: "Assorted, Phone, London." Telephone: North 2770 (3 lines).



LYONS FAIR

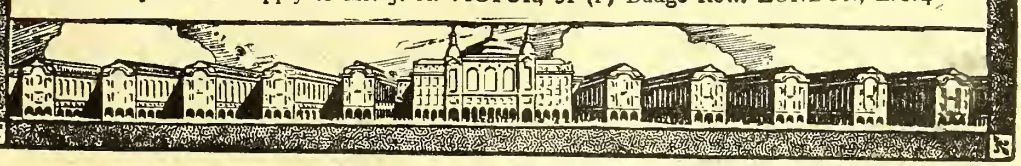
THE LYONS FAIR is to-day's greatest opportunity for trade expansion in every industry and with every market throughout the World. It is not an Exhibition, but a purely business gathering of progressive men and their customers.

The business propensities of the Lyons Fair are indicated by the fact that at the March, 1919, Fair, 4,700 exhibitors transacted business to the value of £40,000,000. Lay the foundation of a permanently expanding world-wide trade (buying and selling) by taking immediate steps to secure a Stand in Sections 11, 12 and 13 for Chemicals and Drugs.

SPRING FAIR .... March 1 to 15, 1920

AUTUMN FAIR .... October 1 to 15, 1920

For particulars apply to Mr. J. A. **VICTOR**, 31 (P) Budge Row. LONDON, E.C.4



BIDWELLS' LTD.

RELIABLE TOOTH BRUSHES.

Gloria Silverdrawn, -	18/-
Mitre - - -	14/-
Elephant - -	12/-
Anchor - - -	10/-

GROSS LOTS NAMED FREE. CARRIAGE PAID.

We do not Sell Foreign Tooth Brushes.

A selected £10 parcel of Hair Brushes from 30/- to 100/- per doz., carr. paid.

Made at our Factories, AXMINSTER, DEVON.

Inquiries invited for all kinds of

Bottle-cleaning Brushes

INCLUDING

FEEDING BOTTLE & TUBE BRUSHES

PROMPT DELIVERY.

CAMEL HAIR PENCILS
IODINE, THROAT, AND VARNISH BRUSHES

SHAVING BRUSHES
Real & Mixed BADGERS

Send for Price List.

Velour Puffs — Pocket Combs

EBONY MANICURE SETS
VANITY CASES.

Wholesale and Export only supplied

A. E. DEPRETER,
24 HOLBORN, LONDON, E.C. 1.

Telephone: Holborn 3182.
Telegrams: "Aedeprelon, Smith, London."
Code used—A B C, 5th Edit.

THE "IRIS" SEALING MACHINE



STRONG SIMPLE EFFECTIVE

If you are not already using our GUMMED TAPE for your parcels and packets, it is worth your while to send for samples and prices.

R. A. STEPHENSON, LTD.
130 Queen Victoria Street,
LONDON, E.C. 4.

Telephone: City 2577.
Telegrams: "Econorast, Cent, London."

NAIL
FILES,
SCISSORS,
CLIPPERS,
INSTRUMENTS.

—TWEEZERS & FORCEPS.—

Special quotations to large buyers.

HENRY W. SCURR, HENRY RD., SLOUGH

PIPES AND SMOKERS' REQUISITES.

Price Lists on Application.

HARWOOD BROTHERS,
BRIAR PIPE MANUFACTURERS,
8/20 Richmond Street, LIVERPOOL.

G. B. KENT & SONS, LTD.

Are known the World over as the Largest Manufacturers of

BEST BRITISH BRUSHES

Please write for full Particulars to—

75 Farringdon Road, E.C. 1.

BRUSHES.

At this season of the year, Hair and other Brushes command a ready and profitable sale. The following items are recommended as go d sellers and ready for immediate delivery from our stock—try an assorted parcel

HAIR BRUSHES—			
Satinwood back	12 rows	per doz.	45/-
,, ,, ...	11 ,, super quality	,,	57/-
Ebonised ,, ...	11 ,, ...	,,	57/-
Real ebony (stamped)	9 ,, ...	,,	102/-
,, ,, ...	13 ,, ...	,,	108/-
,, ,, ...	11 ,, deep cut	,,	120/-
SPECIAL LINE, ebony (unstamped)	9 ,, ,, ...	,,	84/-
,, ,, ,,	12 ,, shaped back	,,	84/-
,, satinwood	5 ,, whalebone	,,	33/-
Gents' military, ebonised	11 ,, without leather case	per pair	7/-
NAIL BRUSHES—			
Polished wood back	8 rows, bristle and fibre	per doz.	8/6
Perforated ,, ...	7 ,, ,, ...	,,	10/6
TOOTH BRUSHES—		Assortment B	C
Bone handles	4 rows	per doz. 7/-	8/-
Celluloid ,, ...	4 ,, ...	,, 9/6	
SHAVING BRUSHES—			
Bone handles, hog hair	... ...	per doz.	14/-
,, imitation badger	... ...	,,	18/-
,, real ,, ...	... ...	,,	69/-

A discount of 5% for prompt cash is allowed on all amounts of 10/- and upwards.

OUR GOODS ARE RIGHT. MONEY BACK IF NOT SATISFIED.

BURGE, WARREN & RIDGLEY, LTD.

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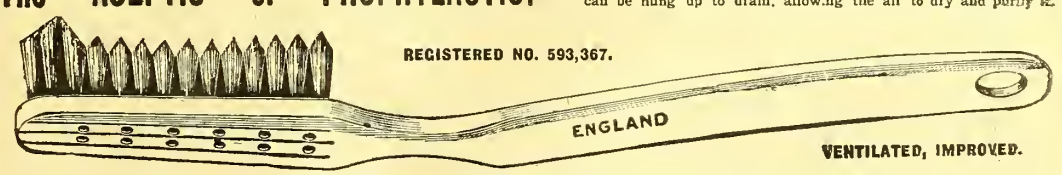
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Some practical comments on this subject by a veteran pharmacist recently came under our notice, and we quote them here in the belief that they will be of general interest to the Trade.

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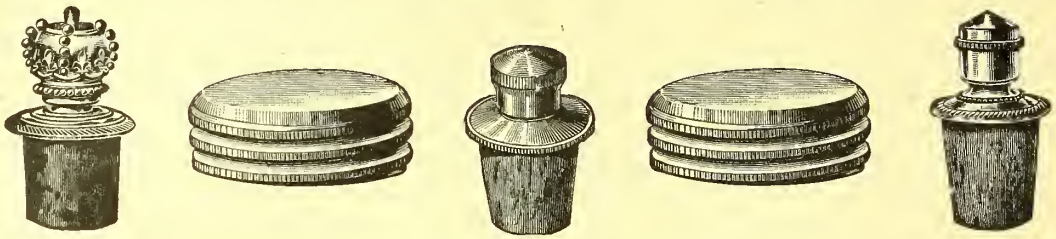
He then instances the case of a friend of his who found that **"by buying direct from the makers, and taking full advantage of discounts and window shows, I make an extra 10 per cent. clear profit on the same turnover for the small extra trouble of the direct accounts; in addition, I am far less likely to be out of stock of the good selling lines, and find I do 25 per cent. more trade in these lines than formerly."**

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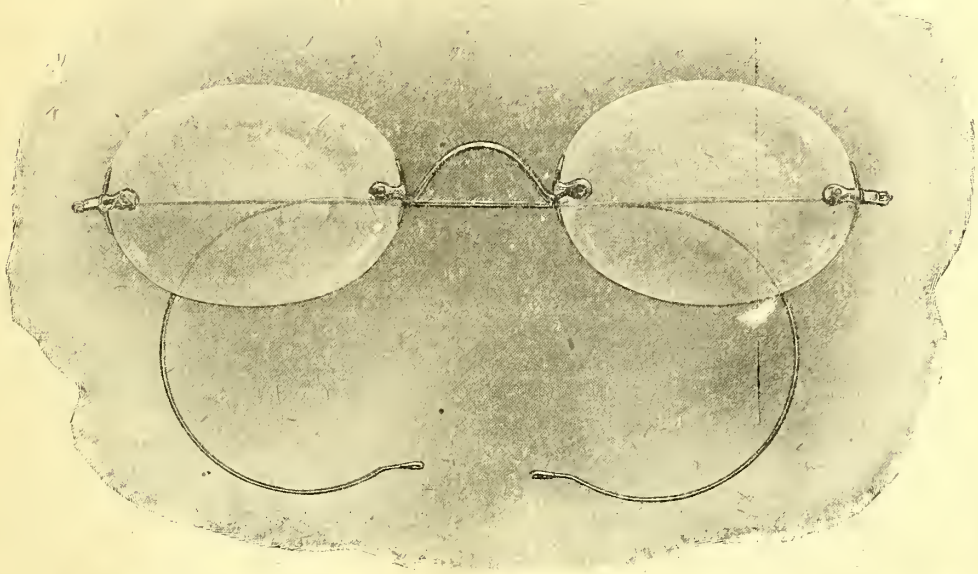
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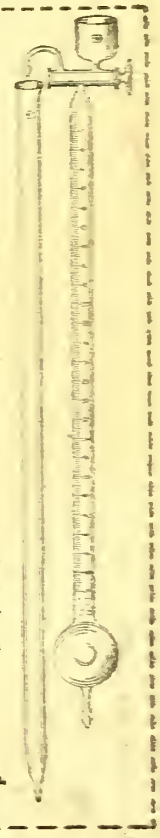


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The Chemist and Druggist Diary, 1920.

We much regret to announce that there has been unusual delay in producing *The Chemist and Druggist Diary*, 1920, owing to the prevailing adverse economic conditions. The copies for Colonial and Foreign subscribers are being despatched this week, and we hope to send out the Home copies immediately after Christmas. Will our subscribers please accept our apologies for the unavoidable delay?

The Index to this Volume

covering the year 1919 is in preparation. It will not be published with THE CHEMIST AND DRUGGIST, but when ready will be sent to any subscriber who intimates his desire to receive a copy. Postcard applications should be sent to the Publisher, 42 Cannon Street, London, E.C. 4. As on previous occasions, a certain number of copies of index will be reserved for applications from Colonial and foreign countries, so that all desiring to bind their volumes can complete them with the index.

LONDON (WESTERN) PHARMACISTS' ASSOCIATION.—A Cinderella dance will be held at the Midland Hotel, St. Pancras, London, on January 14, at 7 P.M. Tickets (10*s.* 6*d.* each) from Mr. B. R. Wilkinson, 23 Cromwell Place, South Kensington, London, S.W. 7.

AMALGAMATED SOCIETY OF PHARMACISTS, DRUG AND CHEMICAL WORKERS (RETAIL AND PUBLIC SERVICES BRANCHES).—A social evening will be held at Slater's Restaurant, 27 Leadenhall Street, London, E.C., on January 8, at 7 P.M. Tickets (3*s.* 6*d.* each) from Miss L. Bridges, 34 Steeles Road, Haverstock Hill, N.W.

Experiences of the Great War.

Contributions to this section are invited.

XX.—A Chemist in the Tank Corps.

THE word "Tank" is merely a camouflage name. "Water Tank" having been originally painted in Russian upon the first lot sent to France, and these went into action in September 1916 on the Somme. Good work was done with them there as well as on the Ancre, at Arras, and Ypres. At Ypres we lost many, and visitors to the battlefields of Polygon Wood, Inverness Copse, Gheluvelt, etc., will see many lying derelict, a monument to the pioneers of the Tank Corps. The ground at these spots, which had been continually shelled, was aërated, and persistent rains made it so soft that we often sank feet under the surface and it was impossible to move, thus leaving the infantry unassisted and unprotected; we began to get a bad name. The year was coming to a close, the Germans had been hard hit all the summer, but, at the same time, the Italians were being pressed in the South, troops, artillery, etc., were required to help them, while Germany had to be prevented from sending reinforcements to Austria. The Tank Corps was therefore given an opportunity of showing its power. We were fighting on the Ypres-Menin Road at Gheluvelt on November 5, when we were withdrawn, entrained, our crews practised in the use of fascines for trench crossing, with anchors for wire-pulling, all engines were dismantled and cleaned, and we were again in action at Cambrai on November 20. Previous to this action all wire-cutting had been done by a tremendous artillery barrage, sometimes lasting for weeks and costing thousands of pounds, besides doing away with every element of surprise. For a week previous to the attack the Tanks were concealed in a wood, about four miles behind the front line, no man showing outside. On the eve of November 20 the Tanks moved up, and by 3 A.M. 400 of them were seated on our support line. Officers had gone out, and by the aid of compass and stars laid their tapes half-way across "No Man's Land." At 6.10 the writer, who was in command of the Flag Tank, with the general on board, went forward, and at 6.20 A.M. a single shot opened the famous battle of Cambrai. This was a signal to our artillery, and it was a regular inferno fifty yards ahead of us for three minutes. Then the artillery lifted and we advanced—a more wonderful sight can never be witnessed—with flares and rockets of every kind, colour, and description bursting above. The Tanks ploughed through the wire, leaving a gap the width of the track for the infantry to pass. At this point I would like to indicate to what a state of perfection our Tank Corps gunners had been trained, for had only a single German machine-gun been left not one of our infantry would have passed through the wire. But so successful was the attack that the first-line system of trenches was taken with very few casualties, and the Tanks reached the outskirts of Cambrai, doing outpost duty all that night. The second line of Tanks followed and, carrying anchors, pulled the wire and left the ground clear for the cavalry, while a third line carried bridges to throw across the Hindenburg line. This was completed shortly after nine in the morning. So great was the surprise and so successful was our attack that the Germans diverted their troops from going to Austria, making instead a tremendous effort to break through at Gouzeaucourt and Bourlon Wood. The Tanks took the place of the artillery, and forging through a gas-cloud broke up the German assault, Colonel the Hon. Claud Willoughby's H. Battalion being especially complimented for the way they controlled their engines under gas. The crews had been trained in this part of warfare by Captain Williams, chemist and druggist. It is interesting here to note that in this battle alone the Tank Corps, expensive a unit as it was, paid for itself over and over again in the amount of ammunition saved in destroying barbed wire. In the retreat of March 1918 Tanks fought the rearguard actions, so allowing artillery and infantry to be withdrawn, and when the tide changed and we again advanced we were first and foremost, seeking out machine-guns, knocking

down houses and trees; how valuable they proved in village-fighting can be well imagined. I may mention a few points of interest connected with Tank warfare—to prevent the splintering of armour plates by enemy machine-gun bullets, asbestos sheeting was tried, but without much success; a satisfactory means of making camouflage nets non-inflammable (these nets had to be carried and were for ever catching fire) I found was to soak the nets in a solution of stannous chloride. If the weather remained dry this solution was entirely a success. We had also to combat oil losing its viscosity in the presence of gas which entered through the carburettor, and a means of protecting our crews from the fumes of our own guns and engine exhausts had to be devised. The numbers of men suffering from the effects of this poisoning were and still are tremendous. Few could endure longer than five hours, though at times from necessity we were called on to do more, one Tank at Ypres having fought for seventy-eight hours. Every Tank crew had to know a few stars, since at night these were our only means of direction, the compass being of little or no value. So Polaris, Vega, Arcturus, Spica, Regulus, Castor and Pollux, and Capella, and the planets Venus, Jupiter, Saturn, and Mars became our friends for many a weary night.

F. H. de Blois-Leach.

Chemical Society.

At the meeting of the Chemical Society held on December 18 at Burlington House, Professor James Walker, F.R.S., read a highly interesting paper on

War Experiences in the Manufacture of Nitric Acid and the Recovery of Nitrous Fumes.

In his introductory remarks he observed that the pooling of results and of experiences gained by different departments and their utilisation for the common cause was one of the great features in achieving a quick success in the early days. During the time when the shortage of ammunition was acute, in the beginning of 1915, he approached the War Office with the suggestion that he might contribute to the production of that essential explosive, trinitrotoluol. Every assistance towards the execution of his proposal was afforded by Lord Moulton, and he undertook to supply 150 tons of T.N.T. within a stated period. A disused egg-preserving factory in the neighbourhood of Edinburgh was the site selected for the plant, and before the expiration of the time-limit, in October 1915, he was able to deliver the agreed amount of 150 tons of T.N.T. However, they were discouraged from continuing their manufacture in the site selected, as it was pointed out to them that, should a German U-boat appear and start to shell the factory, they would be in direct line with the fire from the shore battery. Consequently another site was selected—close to the North British Railway's goods depôt—and at these new works they were able to produce no less than 30 tons a week in 1917.

With regard to the supply of nitrogen for the manufacture of nitric acid, this country was practically dependent upon the supplies of sodium nitrate received from overseas, and there were no plants for the manufacture of nitrates from atmospheric nitrogen, as was the case in Germany. One source of nitrogen, however, was available, in the shape of ammonia, and the catalytic production of nitric acid from ammonia was undertaken. Professor Walker demonstrated by experiments the formation of nitric acid from ammonia. Some 25 per cent. ammonia was placed in a flask and when a hot spiral of platinum was introduced into the flask, the platinum was seen to glow. On the other hand, if dilute ammonia were used, the appearance of nitrous fumes was observed, and Professor Walker demonstrated how, in the case of dilute ammonia being used, a nitrite is produced, which is not the case when concentrated ammonia is employed. It was found that when 10 to 12 per cent. of ammonia is present in the air mixture, the best results were obtained. Numerous slides illustrated the apparatus and the manufacturing process. The mixture of air and ammonia was filtered through cotton wool, as it was found that dust impaired the activity of the platinum catalyst. The latter took the form of platinum gauze, through which the mixture of ammonia and air was forced, only 1/1,000 of a second being occupied in the passing, while the yield amounted to no less than 97 per cent. They had many difficulties to contend with; one, a minor detail, was that this process produced an extremely penetrating whistling sound. He humorously mentioned how they received one day a visit from a mechanic, who stated that he had not yet encountered any trouble he could not settle with a spanner, and they also received a postcard with the query, "Why don't you oil the d——d thing?" Originally, to make one ton of T.N.T. required 1.27 tons of nitric acid, the average for the country; but by the introduction of devices for the recovery of nitrous fumes they succeeded in reducing the amount of nitric acid required to only 0.95 ton in 1918, shortly before the armistice. The necessity of observing the strictest economy with the sodium nitrate supplied made the recovery of the nitrous fumes evolved in the course of producing T.N.T. a very important factor, and Professor Walker demonstrated by slides the methods used in realising a recovery amounting to 93 per cent. nitric acid from the fumes produced in the course of nitration. In conclusion, he remarked that academic chemists had done well in the war, and had shown that they could enter the manufacturing branch of chemistry if endowed with common sense, and were willing to listen to those who had practical experience and engineering knowledge. The chemist who had a sound knowledge of his profession would also possess the necessary business instinct, and the research laboratories of the Germans were not so much scientific, but rather an indication of excellent business methods, implying a co-ordination of both aspects of the chemical industry.

Festivities.

Harkness Beaumont's Dance.

Over one hundred employés and friends of Harkness, Beaumont & Co., wholesale druggists, Junction Bridge, Leith, held their annual dance in Smith's Rooms, Duke Street, Leith, on December 12, when an enjoyable evening was spent. The duties of M.C. were carried out by Messrs. D. Kerr and G. Winton.

Leeds College of Pharmacy "Smoker."

The autumn session of the Leeds College of Pharmacy terminated on December 17, when the students were entertained to high tea by the Principal (Mr. F. Pilkington Sargeant) at the Leeds Conservative Club. A smoking concert followed during which a surprising amount of talent among the students was manifested. An orchestra of nine performers contributed several selections, while the artistes were responsible for twenty items. A feature of the evening was the presentation to each student of an amusing programme designed by Mr. A. W. Lupton, senior demonstrator. The motto of the college "Altior" heads the programme, and is formed by a clever arrangement of laboratory apparatus. "Friends we have known" are familiar to ex-Service men, and a stage in the extraction of silver is recalled by the head of a mule dignified by the title "A silver manufacturer," with a simple equation to prove the accuracy of the description. A zealous student who has detected the presence of fulminate with disastrous results to the L.C.P. occupies the bottom right-hand corner. The other illustrations are the "copper" ion, electrolysis simplified and specimens of "never works."

There was an interesting link with pharmacy in the family history of the late Field-Marshal Sir Evelyn Wood. Matthew Wood, his grandfather, was apprenticed to an Exeter chemist in the latter part of the eighteenth century, and became successively a traveller in drugs, a hop merchant, and Lord Mayor of London.

English and Welsh News.

The Editor would be obliged if subscribers would send him marked copies of newspapers containing items of interest for insertion in this or other news sections of the "C. & D."

Annual Stocktakings.

THE following houses, in addition to those mentioned in our issues of December 13 (p. 45) and December 20 (p. 45), will be closed for stocktaking on December 30 and 31 :

Berton, Arthur, Ltd., 15 and 17 Worship Street, E.C.
Reuter, R. J., 69 Carter Lane, E.C.
Tompkins, James, Ltd., 386 City Road, E.C.

Poisonings.

The following fatal cases of poisoning have been recorded since our last report :

At Bradford, Percy Frank, spinner's manager, committed suicide by taking spirit of salt while of unsound mind.

At Fulham, the wife of a labourer named Bonner died from taking spirit of salt in mistake for ammoniated tincture of quinine. The two liquids had been kept, it was stated, in similar bottles.

At Chertsey, on December 19, an inquest on the body of Arthur Charman, a butler, was concluded. It was stated that crystals found in a tumbler by his side contained 95.5 per cent. of oxalic acid, and that the contents of his stomach included 3.3. gr. of the acid. An open verdict was recorded.

Birmingham.

Our suburban window-displays have been chiefly devoted, of late, to well-known proprietaries.

A small but destructive outbreak of fire occurred on December 19 at the works of Cadbury Bros., Ltd., Bournville.

The employés of Southall Bros. & Barclay, Ltd., have sent a substantial donation to the Birmingham "Mail's" Christmas Tree Fund.

A new photographic club is in process of formation in Birmingham. Particulars can be obtained from the secretary, Mr. J. A. Kyle, Winchester House, Victoria Square.

"The Erosion of Lead" was the title of an interesting paper contributed at a recent meeting of the local section of the Society of Chemical Industry by Messrs. J. F. Liverseege, F.I.C., Ph.C., and A. W. Knapp, B.Sc., F.I.C.

Miss Vera Janet Alcock, daughter of Mr. F. H. Alcock, F.I.C., Ph.C., was a prize-winner in a recent competition for the memorial prizes founded at the New Street Girls' High School. Miss Alcock is studying at Girton College, Cambridge.

Liverpool.

Measles are prevalent to the north of the city and diphtheria at Ormskirk.

Ginger-wine essences, both proprietary and domestic, have been much in request during the past week.

The council of the Liverpool Chemists' Association has sent out a postcard suggesting as the opening hours on December 27, 9 to 12 A.M. and 6 to 8 P.M.

A young man in a hurry lately entered a down-town pharmacy with the request : "Tell me where to find a commissioner for oaths." The *C. & D.* correspondent, who had just gone out of the shop, was overtaken, and managed to answer the "legal query."

The early closing of nearly all shops save those of chemists and druggists has led firms employing lady clerks to concede to them an occasional afternoon or Saturday morning for shopping, and, in one instance, shopping afternoons are granted to the male clerks.

Manchester.

A consignment of about 650 tons of German dyes has arrived in Manchester under the terms of the Peace Treaty, and the material is awaiting distribution through the medium of the Central Importing Agency. There appears to be considerable delay in making the distribution, and the constitution of the Central Importing Agency is not one that gives confidence to the smaller dyers.

Sheffield.

Congratulations have been showered on Messrs. Austen & Culverhouse on their successful appeal under the Profiteering Act (see p. 64).

Mr. J. Gilbert Jackson has been appointed, together with the medical officer of health for Sheffield, to the National Council for Combating Venereal Diseases.

While Mr. Keighley, foreman of W. Pickard & Co., Ltd., wholesale chemists, was making his nightly inspection of the premises, two unknown men knocked him down and kicked him severely about the head. He was removed to the Royal Infirmary.

Miscellaneous.

TRANSPORT DIFFICULTIES.—At a meeting of the Huddersfield Chamber of Commence on December 19, Mr. R. C. Walshaw, chemist and druggist, suggested that representatives of that and other Chambers should form themselves into a joint permanent committee to consider what methods could be adopted for bringing pressure to bear upon the railway authorities in order to expedite transport. A resolution embodying the suggestion was unanimously passed.

"UNDRINKABLE" METHYLATED SPIRIT RECOMMENDED.—Mr. Thomas Ridley, chemist and druggist, Mayor of Carlisle, has informed the local advisory committee to the Liquor Control Board that the practice of buying methylated spirit for drinking is on the increase. The committee has decided to urge upon the Government the importance of making compulsory the application of a process to methylated spirit which will render it undrinkable "without destroying its essential properties."

FIRE.—Damage estimated at 12,000*l.* was caused on December 21 by an outbreak of fire on the premises of the Frame Food Co., Standen Road, London, S.W. 18. The outbreak, which is attributed to drying wood, resulted in the destruction of part of the roof; but there will be no shortage of Frame Food, as complete arrangements have been made for "business as usual."—On December 17, an employé of the Theodore Noel Co., Ltd., proprietary-medicine manufacturers, 29 Ludgate Hill, E.C., was severely burned in consequence of an outbreak of fire. The damage to the premises was slight.

ROYAL INSTITUTION.—The Friday evening discourses at the Royal Institution commence on January 16, when Professor Sir James Dewar will lecture on "Low Temperature Studies." The time of the discourses is to be 9 P.M. Among the subjects on succeeding Friday evenings are lectures by Sir Charles Parsons on "Researches at High Pressures and Temperatures"; Professor W. M. Bayliss on "The Volume of the Blood and its Significance"; Mr. W. B. Hardy on "Problems of Lubrication"; and Professor Sir J. J. Thomson on "The Scientific Work of the late Lord Rayleigh." The courses of lectures include "Recent Progress in Applied Optics" (two lectures), by Professor A. E. Conrady, and six lectures on "Positive Rays" by Professor Sir J. J. Thomson.

MEETING OF CREDITORS.—A meeting of the creditors of Mr. Harold Hodgkinson, chemist and druggist, 1 Market Street, Hyde, was held at Hyde on December 17, when the debtor's solicitor, Mr. Slater, reported that no proper statement of affairs had been prepared. According to figures given by the debtor, however, it would appear that the liabilities to trade creditors amount to 129*l.*, and there is a cash claim by the debtor's father of 627*l.* 10*s.* The total liabilities, therefore, would appear to be 756*l.* 10*s.*, to meet which there are assets of approximately 305*l.* after allowing for the claims of the preferential creditors. The claim of the cash creditor is in respect of money advanced to the debtor when he purchased the business. Mr. Slater stated that his client acquired the business in June 1914 from a Mr. White for 515*l.*, borrowing the money from his father, who holds a promissory note for the amount at 4½ per cent. The debtor, who is a married man, has lived with his father-in-law since his marriage, and possesses no household furniture whatever. He joined the Army on November 1, 1917, since when the business had been closed. He was demobilised last

January, and was receiving no pension. An application had been made for a resettlement grant from the Government, but the only amount received by the debtor was 18*l.* 15*s.*; altogether he had received from the Government by way of grants 117*l.* 4*s.* 7*d.* and paid away 119*l.* 4*s.* 11*d.* The only proposal the debtor had to make was that he was willing to hand over all he possessed for the creditors to receive as much as possible. Eventually it was decided that the debtor should authorise the representative of the largest creditor—namely, Mr. W. Eaves, 15 Fountain Street, Manchester—to realise the whole of the estate under a letter of authority. The following are among the creditors: J. Woolley, Sons & Co., Ltd. (Manchester), 45*l.*, and Ayrton, Saunders & Co., Ltd. (Liverpool), 8*l.*

In the Courts.—In the course of the hearing of a case at Newcastle-on-Tyne, on December 16, against Mauritz van der Velde and Cyril Beauclark, surgical-instrument makers, who were eventually fined 100*l.* each under the Venereal Disease Act (*C. & D.*, December 20, p. 54), Mr. T. Maltby Clague, Ph.C. (Mawson & Proctor, chemists), stated that a box of thirty-six sandalwood-oil capsules, for which 9*s.* had been charged by the defendant firm, was worth 6*s.* at a first-class chemist's shop in a first-class vicinity. The manager of the shop subsequently stated in evidence that he first served in the drapery trade, then went into the furniture line, and now, after experience in the Army, was with the defendants.—At Bow Street Police Court, London, on December 18, Frank Wilson, described as a newsvendor, was charged with stealing two bottles of perfume, value 10*s.*, the property of Wray's Drug Co., Ltd., 8 High Holborn, W.C. It was stated that on the previous day the accused entered the shop, purchased some cough-lozenges, and took an opportunity of putting the two bottles of perfume in his pocket. On being taxed with the theft, he offered to pay for them. Another similar charge was preferred, and Wilson was committed for trial.—At West Malling Police Court, on December 19, Mary A. L. Woodger was charged with administering laudanum to her husband with intent to murder. The evidence showed that some cocoa, reserved by the husband from a cupful given him, had been found on analysis to contain laudanum; and Mr. F. C. Peebles, chemist and druggist, stated that on November 9 the prisoner purchased two ounces of laudanum from him, signing the poison register. The laudanum was understood to be used for a lotion. On December 11 another 1½ oz. was purchased by Mrs. Woodger. She was committed for trial.

Irish News.

The Pharmaceutical Society of Ireland.

The following message was sent on December 19 to the Viceroy's private secretary:

I have the honour to state, for the information of His Excellency, that the President of the Pharmaceutical Society of Ireland desires, on behalf of the Pharmaceutical Council, to offer sincere congratulations on his providential escape, and to assure him of their profound abhorrence of the dastardly outrage.

The following acknowledgment has been received:

His Excellency desires me to thank you and the Pharmaceutical Council for your kind letter of congratulation.

Brevities.

The strike situation throughout Ireland remains unaltered. In Belfast several more assistants have returned to work. Meetings of both sides held on December 17 endorsed the action of their representatives at the Dublin meeting.

Mr. Joseph McMullan, R.D., 26 Church Street, Coleraine, has removed to more commodious premises at 8 Church Street.

Mr. J. F. O'Donnell, Ph.C., Buncrana, has purchased the business of the late Mr. J. H. Hegarty, Ph.C., Central Pharmacy, The Diamond, Londonderry. Mr. O'Donnell served his apprenticeship with the late Dr. Geo. M'Caul, Ferryquay Street, Londonderry.

At a recent meeting of the Sligo County Infirmary Board it was stated that Mr. Cagney, Ph.C., dispenser, had written saying he had received no salary since last March. The chairman explained that Mr. Cagney had been appointed by the committee at 40*l.* per year, while according to an old statute he could only get 30*l.* per year. The auditor had approved of the payment for three years, but he had refused to sanction it for the year in question. The secretary said the cheques for the amount according to the Act had been drawn, but Mr. Cagney had refused acceptance. Dr. MacDowell and the chairman were appointed to discuss the matter with the auditor in January.

Ballymoney Board of Guardians has increased the salary of their analyst, Mr. R. F. Blake, Belfast, to 20*l.* per annum.

Scottish News.

Dundee.

Mr. R. Guild Strachan, chemist and druggist, Albert Street, has disposed of his business to Mr. J. Craig, chemist and druggist, Aberdeen.

Manufacturers of aërated waters in Dundee and the district announce a deposit-charge of 2*d.* a bottle and 1*s.* a syphon as from December 15.

A Dundee medical man who sued recently in the Sheriff's Court to recover a fee of 7*s.* 6*d.* for testing a patient's eyes was awarded 2*s.* 6*d.*, the Sheriff remarking that he had often seen that sum in accounts for the same doctor, and that the defendant earned 30*s.* a week. The defendant's expenses were allowed

Edinburgh.

A fair number of pharmacists in Edinburgh and Leith intend closing at 1 P.M. on Christmas Day, taking also the usual half-holiday.

A local pharmacy advertises the gift for one day only of a 7½*d.* tooth-brush or tube of tooth-paste to each purchaser of goods to the value of 2*s.* 6*d.* and upwards.

Fife.

Fife chemists' Insurance balances for the year 1918 have just been paid.

Mr. Alexander Spence, pharmacist, Leslie, was a prize-winner in a whist-drive organised recently by the Leslie Golf Club.



The Exhibit of The British Drug Houses, Ltd., at the British Science and Key Industries Exhibition, Kelvin Hall, Kelvingrove, Glasgow. The Exhibition was open from November 7 to December 6.

Japanese Caffeine.—The manufacture of caffeine has been carried on in Japan for about three years. There is one large company in Japan proper which is engaged in this industry, and another Japanese concern, already making caffeine in Formosa, is to establish a new factory in Shizuoka, Japan. Three smaller factories are also engaged in this business.

French News.

(From the "C. & D." Paris Correspondent.)

M. LEMOINE, who has been elected Vice-President of the Academy of Sciences for 1920, has belonged to the Chemistry Section since 1899. He is best known for his researches on the phenomena of chemical equilibrium, on the dissociation of hydriodic acid, and on photochemistry.

METCHNIKOFF'S PROPHYLACTIC OINTMENT.—As Metchnikoff's calomel ointment soils the clothing, Dr. Claret suggests a soft paste of hydrated amygdalin soap. This is easily prepared, will keep several months in tin tubes, and provides a good coating, which is easily washed off after a few hours.

FITTING THE CRIME.—The Director of the Paris School of Pharmacy was requested by the Prefect of Police to accompany (as a technical expert) an official making a domiciliary visit to premises professionally occupied by Dr. Madeuf, who possesses the double diploma of medicine and pharmacy. Dr. Madeuf declared that this constituted a "violation of professional secrecy," and issued a summons against the Director. The case dragged through the police courts, the Court of Appeal, and the Court of Cassation. At the final hearing the doctor failed to appear. The supreme court declared that the plaintiff had evidently prosecuted with the object of annoying the Director, and decided that Dr. Madeuf must pay all costs, including the insertion of the judgment in five pharmaceutical journals and one daily paper.

WHOOPING-COUGH REMEDIES.—"The Journal des Practiciens" dissertates on whooping-cough remedies. It hesitates to recommend carbolic powders, the smearing of the throat with 3 per cent. cocaine, and even bromoform, all of which may be effective but are possibly dangerous. Quinine, resorcin, inhalations of naphthalin, ozone, and oxygenated water, opotherapeutic medication, and specific serums, it is hinted, are useless except in certain mild cases and towards the end of the malady. Suggested treatment includes mild remedies in the opening and less serious stages of the malady (diacode syrup, æthone); belladonna when the fits of coughing increase, if need be with antipyrin; bromide of potassium to induce sleep; morphine to be used only as a last resource; benzoate of soda if bronchitis threaten; warm damp wraps; hot baths in case of broncho-pneumonia; fumigations with tincture of benzoin, Gomenol and thymol.

CHLOROPICRIN FOR VERMIN.—A paper was read recently at the Academy of Sciences on the destruction of bugs by chloropicrin. MM. Gabriel Bertrand, Brock-Rousseau, and Dassonville report that 15 grammes of the substance per cubic metre of air will kill the insects in a little over an hour. One gramme per metre is effective in twelve hours. The most suitable dose seems to be from 4 to 10 grammes. If the eggs are not destroyed, a second disinfection, a fortnight later, is recommended. These experiments seem to have been made on military premises with picric acid, rejected by Army "reception" committees on account of the excessive quantity of contained lead. MM. Bertrand and Dassonville have also experimented on the treatment of mange with vapour baths of chloropicrin, which gave encouraging results. The horses were placed in the boxes (hitherto used for sulphuration), and 20 grammes of chloropicrin diffused by means of a syringe fitted with a spray. Half an hour sufficed for the bath (sulphur requires two hours). "Chloropicrination," the originators claim, not only saves time, but is much simpler; boxes need not be air-tight, and there is less danger should accidental inhalation occur.

THE LAVOISIER OF FRENCH MEDICINE.—Quimper, the picturesque little Breton town, recently celebrated the centenary of Laennec's great discovery the stethoscope; and Dr. Helme has narrated in a leading Parisian daily some facts relating to the famous surgeon after whom one Paris hospital is named, and who figures in the commemorative frescoes of the leading discoveries of French science adorning the great staircase of the Sorbonne. He tells us that Laennec was strolling through Paris, meditating on how he could study the invisible portion of the living human frame, when, on the Place du Carrousel, he saw two children playing around a beam of wood. One, standing at the end of the log, scratched it with a pin. The other, his ear placed against the opposite extremity, shouted with pleasure as the minute and distant sound reached his ear. Laennec noticed, and hurried back to his hospital. Rolling up his list of visits, he placed it against a patient's chest and listened to the sounds. Soon after, his work on "Auscultation," published in 1819, aroused the interest of the whole world. Mr. Rudyard Kipling reminded us in one of his short stories ("Marklake Witches," in "Rewards and Fairies") that Laennec was at one time a prisoner of war in England, and shows him using his "devil's ear-trumpet" some years in advance of the date given by Dr. Helme.

MEMORABLE MEETING AT STRASBOURG.—The General Association of French Pharmacists adopted in 1915 the suggestion of M. Collard that the first post-war meeting should be held in Strasbourg. The meeting recently held there was, therefore, a festive occasion. There was a *soirée* at the Hôtel Continental; the Alsatians "did the honours" of the city to their French *confrères*, and also to the Belgians, of whom a dozen or so were present. A Venetian fête at the Orangerie, a banquet seating 450, excursions to St. Odille and to Saverne, were all on the programme, and a hundred delegates made a trip to Metz. The principal question on the notice-paper was the position of pharmacy in Alsace-Lorraine. The first idea of the Alsatians (the purchase of their privileges and the introduction of free pharmacy as in France) seems finally to have been abandoned. It was felt that the limitation of pharmacies was not in itself objectionable, and the meeting held that the desirable course to pursue would be gradually to abolish permanent concessions, but to endeavour to extend the system of personal concessions to France, thus bringing the two sides of the Rhine into line. Whether French legislators will adopt the recommendations of the pharmacists remains to be seen. Among the Alsatian pharmacists who lavished hospitality on their French visitors mention may be made of M. Thumann, M.M. Mengus and Netter of Strasbourg, M. Levy (chairman of the Metz Pharmacists' Society), and M Fritsch (pharmacist at the Mulhouse Hospital).

THE FORTHCOMING CODEX.—The Society of Therapeutics has discussed the question of publishing in the Codex Supplement the maximum doses of new medicaments, and objections, M. Carnot said, had been raised to the proposal. M. Bardon explained that the Codex Committee had no idea of fixing doses; the idea was simply to indicate to pharmacists the quantities which could not be exceeded without danger. He agreed that certain doses were excessive—for instance, sulphate of atropine, one milligramme at a time or two milligrammes in twenty-four hours. M. Desesquelles considered that this exaggerated dosage was intentionally designed to cover the medical practitioner in case of accident. A dose of one milligramme of strophanthin for twenty-four hours seemed much too high when the method of administration was not indicated. M. Richaud said that one-tenth of a milligramme was ample; he noted that fatal accidents caused by intravenous injection had been placed on record, and dwelt on the comparative effects of intramuscular and intravenous injections and administration by the mouth. M. Catillon did not believe in general rules. He had made up prescriptions (responsibility being accepted by the doctor) for one gramme of cyanide of potassium in less than twenty-four hours, while the Codex gives four centigrammes; and he had also seen strophanthin administered in double the maximum dose of the Codex. M. Chassevant thought the maximum-dose system militated against doctors. M. Richaud remarked that M. Landouzy clearly indicated, in the preface to the 1908 Codex, that the minimum and maximum doses were given simply as information, and were not to be held as evidence by Courts. The doctor could assume responsibility by confirming with the formula "Je dis."

The Profiteering Act.

Proceedings Tabulated.

During the past three months our columns have included, week by week, the only approximately complete summary of Profiteering Act cases that are of interest to pharmacists. In the subjoined table particulars are given of those cases that were contested. From it are excluded (1) cases brought against tradesmen other than chemists or limited companies trading as chemists, (2) cases withdrawn without a hearing, (3) cases awaiting the decision of other authorities, and (4) cases in which the statements of the complainants were not accepted by the Committees. Disregarding two or three instances in which the price of the article is not specified, we have 123 cases, relating to a total retail value of 12*l.* 13*s.* 8*d.*, an average of 2*s.* 0.75*d.* each. In 49 of these cases refunds were ordered, amounting in all to 1*l.* 3*s.* 7*d.*, or 9.3 per cent. of the amount in respect of which charges of profiteering were brought. On examining this refund total of 1*l.* 3*s.* 7*d.* it will be found that 4*s.* 2*d.* refers to articles charged at protected prices, and 5*s.* 4½*d.* is made up of small sums admittedly due to errors in charging familiar in every shop. The amount carried to the appeal stage is 8*s.* 2½*d.* Prosecutions so far reported number nine, of which five resulted in fines and four in acquittals.

The symbols adopted in the "Decision" column (Complaints table) are: D—dismissed; A—appeal; DA—dismissed on appeal; R—refund; P—prosecution; W—withdrawn. In the corresponding column of the Prosecution table, F stands for fine; C for costs; D for dismissed.

Complaints.

Subject	Price	Decision	Locality	Index Folio
Acetic acid, 1 pint ..	2*s.*	D	King's Lynn	1,241
Allenbury's rusks ..	3*s.*	DA	Sheffield ..	1,398
,, ,, ...	5*s.* 9*d.*	D	Maryiebone	1,463
Alum, pure, 4 oz. ..	10½*d.*	W	Birmingham	1,461
Aspirin, 10-gr. eachet ..	6*d.*	D	Westminster	1,367
Aspirin tabloids	1*s.* 3*d.*	D	Bermondsey	1,397
Beecham's Pills	3*s.*	D	Newport, Mon.	1,299
,, ,, (loose) 1 doz.	4*d.*	D	Fulham ..	1,431
Bismuth & soda tabloids ..	2*s.*	R 6*d.*	Oxford ..	1,463
Black currant lozenges, 1-oz.	8*d.*	D	Newport, Mon.	1,332
Body belt, man's ..	22*s.* 6*d.*	D	Woolwich ..	1,400
Borax, 4-oz.	6*d.*	R 3*d.*; P	St. Paneras	1,269
Boric acid, 4-oz.	7*d.*	D	,, ,,	1,333
,, ,, 1-oz.	3*d.*	D	Penge ..	1,431
Bottle	3½*d.*	D	Hounslow ..	1,397
Bottle, refund on ..	—	DA	Lambeth ..	1,495
Bynogen	10*s.*	R 1*s.*	Acton ..	1,204
California Syrup of Figs	2*s.* 5*d.*	D(R5*d.*)	Brighton ..	1,364
Camphor, ½-oz.	1*s.*	D	Ealing ..	1,240
,, ½-oz.	6*d.*	D	Lambeth ..	1,299
,, ½-oz.	6*d.*	R 2*d.*;	Bermondsey	1,397
,, ½-oz.	5*d.*	R 1*d.*: P; A	,,	1,397
,, ½-oz.	6*d.*	R 2*d.*: A	Chelmsford	1,430
,, 1-oz.	2*s.*	D	London, E.C.	1,398
Camphorated Chalk, 4-oz.	1*s.* 3*d.*	R 3*d.*	Westminster	1,367
Carter's Little Liver Pills	1*s.* 3*d.*	D	Wallington	1,333
Caseara sagrada tabloids	1*s.* 9*d.*	D	Hornsey ..	1,397
Child's comforter ..	7½*d.*	W	Camberwell	1,461
Cinnamon tablets ..	1*s.* 3*d.*	R 3*d.*	Manchester	1,299
Clinical thermometer, 1-min	6*s.*	P	,,	1,398
Cloves, 1-oz.	9*d.*	R 5*d.*	Banbury ..	1,461
Coconut oil	3*d.*	D	Oxford ..	1,463
Cod-liver oil emulsion ..	1*s.* 8½*d.*	W	Greenwich ..	1,431
Cod-liver oil & iron wine, 1-oz. each	1*s.* 5*d.*	R 7*d.*; A	Walton-on-Thames	1,464
Colgate's tooth-paste ..	1*s.* 6*d.*	D	Westminster	1,367
,, shaving-stick ..	1*s.* 6*d.*	D	,,	1,367
Comb	3*s.* 6*d.*	D	Barry, Glam.	1,364
,, ...	2*s.* 6*d.*	R 3*d.*; A	Salisbury ..	1,366
Compound liquorice pdr., 4-oz.	10½*d.*	R 5½*d.*; P	Birmingham	1,364
,, ,, ,, 1-oz.	4*d.*	R 2½*d.*: P	Woolwich ..	1,399
Cotton-wool, 2-oz. packet	1*s.*	R 5½*d.*; P; A	Hackney ..	1,431
Cream of tartar, 1-oz. ..	6*d.*	R 1*d.*; P	St. Paneras	1,269
,, ,, 1-oz. ..	5*d.*	R 2*d.*; P	East Ham ..	1,298
,, ,, 4-oz. ..	1*s.* 3*d.*	D	Paddington	1,463
,, ,, 4-oz. ..	2*s.*	D	,,	1,463
Cutieura Soap	1*s.* 3*d.*	R 2½*d.*	Bristol ..	1,495
Dispensing	3*s.* 4*d.*	D	Wood Green	1,300
Dispensing	—	D	Kensington	1,332
,, ...	6*s.*	D	Surbiton ..	1,333
,, ...	3*s.* 3*d.*	D	London, E.C.	1,365
,, ...	1*s.* 9*d.*	D	Enfield ..	1,397
,, ...	3*s.*	R 6*d.*	Westminster	1,399
,, ...	3*s.*	R 6*d.*	Edinburgh	1,430
,, ...	3*s.*	R 9*d.*	Richmond ..	1,431
,, ...	—	R 5*d.*	Manchester	1,463
Ess. ginger, 1-oz. bot. ..	1*s.* 5*d.*	R 3*d.*	Ealing ..	1,364
Ess. peppermint, 1 dr. ..	5*d.*	R 1*d.*	Deptford ..	1,332
Euthymol tooth-paste ..	1*s.* 3*d.*	D	Ealing ..	1,365
Feeding-bottle, Perfectum	1*s.* 6*d.*	R 3*d.*; P	East Ham ..	1,241
Fellows' Syrup	8*s.* 6*d.*	R 3*s.* 6*d.*; A	Tottenham	1,333
French chalk, 4 lb. ..	3*s.* 6*d.*	D	Wednesbury	1,242
Friars' balsam, 4-oz. bot.	5*s.*	R 2*s.*; P	Westminster	1,367
,, ,, 1-oz. bot.	1*s.*	D	Wisbech ..	1,367
Gamgee tissue, 2-oz. pkt.	8½*d.*	R 1*d.*	Barnet ..	1,330
,, ,, ½ lb. ..	2*s.* 3*d.*	R 5*d.*	Glasgow ..	1,462
Glauber's salt, 4-oz. ..	3*d.*	D	Barnes ..	1,330
,, ,, 4-oz. ..	4½*d.*	R 1½*d.*	Cheltenham	1,331
,, ,, 4-oz. ..	2*d.*	W	Romford ..	1,431
,, ,, (feathery), 8-oz.	1*s.*	R 6*d.*; P; A	Hampstead	1,462
Glycerin pastilles, 1-oz. ..	6*d.*	D	Lambeth ..	1,398
Gregory's powder, 1-oz. bot.	8*d.*	D	West Ham	1,300
Henri's shampoo powder	3*d.*	D	Edinburgh	1,241
Hooker's Malted Milk Tabs	2*s.*	D	London, E.C.	1,366
Lemeo, 2-oz. jar	1*s* 8*d.*	R 2*d.*	Chester ..	1,268
Lewis's Drops	2*s.*	D	Pontypridd	1,366
Lime water, 4-oz. bot. ..	1*s.* 3*d.*	R 8*d.*; P	London, E.C.	1,462
Linseed, 1 lb.	1*s.*	D	Walsall ..	1,399
,, 4-oz.	3*d.*	D	Felixstowe	1,462
Linseed lozenges, 4-oz. ..	9*d.*	D	Edinburgh	1,241
Liq. & menthol pellets, ½-oz.	4*d.*	D	Felixstowe	1,268
Marshall's herbal cigarettes	1*s.*	R 6*d.*	Wednesbury	1,367
Methylated spirit, ½-pint ..	9*d.*	D	Brentwood	1,268
Murray's Fluid Magnesia	1*s.* 3*d.*	D	Leslie ..	1,365
Nail-file	7½*d.*	D	Walthamstow	1,432
Naphthalene (balls), 2-oz.	3*d.*	R 1*d.*	Croydon ..	1,240
Neaves' Food	—	D	Cleethorpes	1,397
Night lights, Child's ..	9*d.*	D	Bexley ..	1,330
,, ,, Pyramid ..	1*s.*	D	,, ..	1,330
,, ,, ,, ..	1*s.* 3*d.*	D	Hendon ..	1,462
Notebook	7½*d.*	P	Walthamstow	1,399
Paraffin oil, 1 gal.	2*s.*	R 3*d.*	Nottingham	1,332
Pears' soap, unscented ..	7*d.*	D	Gt. Yarmouth	1,241
Pepper, 1-oz.	4*d.*	D	Stafford ..	1,269
Peppermint lozenges, 1-oz.	6*d.*	D	Lewisham	1,365
Phosferine	5*s.*	D	Greenwich ..	1,431
Pinaud's Eau de Quinine	9*s.* 6*d.*	D	Frinton ..	1,332
Potassium permanganate, 1-oz.	1*s.* 6*d.*	R 1*s.*; P	Gerrard's Cross	1,298
,, ,, 1-oz.	9*d.*	R 1*d.*; A	Lambeth ..	1,495
Precipitated chalk, ½-oz.	2*d.*	R 1*d.*; P	East Ham	1,298
Pyorrhoeide tooth-paste	7*s.* 6*d.*	R 1*s.* 6*d.*	Portsmouth	1,332
Quinine wine	3*s.* 9*d.*	D	Wallington	1,333
Quinine & iron tonic ..	1*s.* 2*d.*	D	London, E.C.	1,462
Quinine & phosphorus tabs.	10½*d.*	R 3*d.*; P	St. Pancras	1,269
Razor blades, "7 o'clock"	2*s.* 3*d.*	D	Kingston-on-Thames	1,365
Rogers' Nursery Hair Lotion	1*s.*	R 5*d.*; P; A	Bermondsey	1,330
Saccharin tablets, 100 ..	1*s.* 3*d.*	D	Maidstone	1,495
,, ,, ,,	1*s.* 6*d.*	D	Oxford ..	1,463
"Sanitas" Powder ..	1*s.* 3*d.*	R 3*d.*	St. Pancras	1,333
Savory & Moore's Food ..	6*s.* 6*d.*	D	Hastings ..	1,171
Scott's dressing, 2-oz. ..	1*s.* 7*d.*	R 9*d.*; P	St. Pancras	1,269
Scidlitz powders, three ..	9*d.*	W	Romford ..	1,431
Shaving brush	12*s.* 6*d.*	D	Hampstead	1,204
Sodium-citrate tablets ..	1*s.* 10*d.*	D	Newcastle-on-Tyne	1,366
Sodium hyposulphite, 1 lb.	10*d.*	R 4*d.*; P	Gerrard's Cross	1,298
,, ,, 4 lb.	2*s.* 8*d.*	R 6*d.*; A	Salisbury ..	1,299
Toilet powder	10½*d.*	R 1½*d.*	Glasgow ..	1,462
Tooth brush	3*s.*	D	Westminster	1,367
Tragacanth, 1-oz. ..	1*s.* 4½*d.*	D	Derby ..	1,240
Vacuum-flask, cork ..	6*d.*	P	Willesden	1,367
Valentine's Meat Juice ..	4*s.* 6*d.*	D	Abertillery	1,363
Vaseline	2½*d.*	D	Finchley ..	1,462
,, 2-oz. bot. ..	1*s.* 6*d.*	R 1*s.*; P; A	Hampstead	1,462
Vinolia soap, Premier ..	7*d.*	D	Surbiton	1,241
Washing gloves, two ..	1*s.* 10½*d.*	R 9*d.*; P	Alton ..	1,367

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Prosecutions.

Subject	Price	Decision	Locality	Index Folio
Borax, 4 oz.	6*d.* (R 3*d.*)	F 10*l.*; C 5*l.* 5*s.*	St. Pancras	1,400
Cream of tartar, 1 oz. ..	6*d.* (R 1*d.*)	D	„ „	1,400
Feeding-bottle, Perfectum	1*s.* 6*d.* (R 3*d.*)	F 1*l.*; C 3*l.* 3*s.*	Upton Park	1,465
Nail-brush	1*s.*	F 7*l.*; C 2*l.* 2*s.*	Willesden	1,496
Precipitated chalk, ½ oz...	2*d.* (R 1*d.*)	F 4*l.*; C 3*l.* 3*s.*	East Ham	1,465
Quinine & phosphorus tabs.	10½*d.* (R 3*d.*)	D	St. Pancras	1,400
Scott's dressing, 2 oz. ..	1*s.* 7*d.* (R 9*d.*)	D	„ „	1,400
Vacuum-flask, cork ..	6*d.*	D	Kilburn	1,464
Washing gloves, two ..	1*s.* 10½*d* (R 9*d.*)	F 5*l.*	Whitchill ..	1,367

Notes.

A Chairman's View.

Councillor Toole, Chairman of the Manchester Profiteering Sub-Committee, has resigned his position. In a letter to the Press he says: "I have come to the considered conclusion that in sitting as chairman I am helping to waste public and private time and money, without helping to confer any public advantage in the shape of checking or mitigating evils which the Act ostensibly sets out to remove. The Profiteering Act, in effect—whatever it may have been in intention—is a farce. . . ."

Another Legal Difficulty.

In the first profiteering prosecution at Blackburn, on December 19, an interesting point was raised. The Bench, after a long hearing, decided to adjourn the case for legal argument on the construction of Section 1 (2) of the Act, the question being whether the Court was bound to accept the verdict of the Profiteering Committee as to the price charged for the commodity in question, or whether they could take an independent line of action. The clerk said that if the Committee's ruling was binding it took from the Court the power to adjudicate on what was considered to be the price actually paid.

Current Prices and "Rings."

In giving a judgment on December 22, the chairman of the London Appeal Tribunal said they could not accept the view that, because goods were retailed at the current market price, therefore that was the price upon which the Tribunal could base their conclusions as to whether or not an unreasonable price had been charged. The attention of the Tribunal had been called to the fact that there existed an association which took upon itself the fixing of prices for the whole trade, and the Tribunal regarded that with considerable apprehension. The Tribunal considered that the existence of such an association was to be strongly deprecated, and they regarded it as their duty to refer the facts to the Board of Trade.

Appeal.

At the sitting of the London Appeal Committee on December 19, Boots, Ltd., appealed against the decision of the Lambeth Profiteering Committee, ordering the refund of an additional 1½*d.* on a bottle on which on return ½*d.* had been allowed (*C. & D.*, October 25, p. 66). Mr. Bramall, solicitor, who represented the appellants, said that the bottle cost 2½*d.* The appeal was allowed.—At another sitting of the same Committee a tradesman who had sold a 2-oz. jar of Marmite extract for 10*d.* successfully appealed against the decision of the Lewisham Profiteering Committee, ordering him to refund 1½*d.* Sir Richard Robinson, who presided, said that the Appeal Committee had taken into consideration the question of cost and market value.—The Appeal Committee also allowed the appeal of a tradesman who had been ordered by the Deptford Profiteering Committee to refund 2½*d.* on a packet of custard-powder charged 1*s.* 3*d.*

Complaints.

Bristol.—The decision of the Profiteering Committee in the case in which 1*s.* 3*d.* was alleged to have been charged for a cake of Cuticura soap (*C. & D.*, November 22, p. 48) has been announced. A refund of 2½*d.* is ordered.

Bromley, Kent.—At the sitting of the Profiteering Committee on November 18, a case was down for hearing in which it was alleged a local chemist had charged 2*s.* for 100 soda-mint tablets. The complainant failed to appear, and the case was dismissed on that ground. The respondent and his solicitor then entered the room, and the latter said that no complaint was made by the purchaser at the time of the sale, nor was any receipt asked for. He submitted that this was a frivolous complaint. The Committee instructed the town clerk to summon the parties in future cases.

Eastbourne.—At the sitting of the Profiteering Committee on December 19, a complaint was brought by Dr. H. W. Saunders against Mr. Arthur Moss, chemist and druggist, Grand Hotel Buildings, regarding a charge of 2*s.* 9*d.* for 100 saxin tabloids, for which number, he said, he had paid 1*s.* 6*d.* a month previously. Mr. C. Hilman, who appeared for the respondent, admitted the price, but submitted that saxin was not a drug, and said he would call four chemists in support of his contention. Complainant contended that it was a drug, and he produced a letter from Burroughs Wellcome & Co. stating that the price was 18*s.* per dozen bottles of 100. He could not say whether that price was wholesale or retail. Cross-examined: He retired from practice about nine years ago. Saxin was a drug, but had no curative properties. Saxin was prescribed in diabetic cases. Mr. Henry Charles Browne, chemist and druggist, said he had been in business twenty-five years. Saxin was certainly neither a food nor a drug. It was an inert chemical substance with no curative or medicinal properties. Mr. Arthur Mills, a chemist of thirty-three years' experience, Mr. David Marchant, a chemist in Eastbourne for twenty-five years, and Mr. Walter Price, a chemist of thirty years' experience, also gave corroborative evidence. A Member: That is only natural. Strong objection was taken to this remark, and the chairman thought that such remarks were best left unmade. After consultation the Committee announced that they had decided to leave it to the Board of Trade to determine whether saxin was a drug or not.—At the same sitting, Dr. Saunders attempted to support a complaint by a son of his, who was alleged to have been charged 1*s.* 6*d.* by the same respondent for 2 oz. of boric lint. It appeared, however, that there is no provision in the Profiteering Act for taking the evidence on oath of a complainant who cannot attend, and Dr. Saunders protested that his son was unfit to travel to Eastbourne. A member of the Committee commented, "We are not here to amuse ourselves like this."

Halifax.—At a recent sitting of the Profiteering Committee a complaint against a tradesman who had charged 1*s.* 10*d.* for a tin of Allinson's Food was dismissed, the respondent showing that last May the cost price was advanced to 18*s.* per dozen. An alteration had been made in pencil-mark on the label.

Lambeth.—At a recent sitting of the Profiteering Committee a complaint was made concerning a charge of 9*d.* for 1 oz. of potassium permanganate at Parke's Drug Stores, Ltd., Electric Avenue, Brixton. The complainant stated that he only expected to pay 1*d.* or 2*d.* per oz. Mr. Spence, manager of the branch in question, stated that potassium permanganate had gone up to 2*s.* per oz., but had now come down in price. He had a consignment delivered to him in April last, when the price was high, and no other consignment was received by him until about a fortnight ago. In November 1917 the wholesale price was 6*s.* per lb., in January 1918 15*s.*, and in October 1918 19*s.* In 1914 it was 8*d.* The Committee ordered a refund of 1*d.* Notice of appeal was given.

Maidstone.—At the sitting of the Profiteering Committee on December 17, Mr. F. J. Oliver, J.P., chemist and druggist, Bank Street, was the respondent in a complaint of alleged overcharge for saccharin tablets. The complainant stated that respondent sold a packet con-

taining 100 saccharin tablets for 1*s.* 3*d.*, a similar packet having been purchased at Messrs. Corfe's for 1*s.* the same day. Mr. Bracher, who appeared for the respondent, contended that the Committee had no jurisdiction, as, unless one could consider saccharin a drug, it did not come under any of the schedules of the Act issued by the Board of Trade. Sugar and sugar-substitutes were specifically excluded by the Act. The question had been raised at a meeting of the Middlesex Appeal Tribunal, who had referred the matter to the Board of Trade, whose ruling decision was still awaited. The clerk suggested that saccharin was a medicinal preparation usually prescribed for diabetes. Mr. Bracher retorted that toast was prescribed for the same complaint, yet toast was not a medicine. (Laughter.) The clerk suggested that it might be considered an essence. It was decided to proceed with the case on its merits, the Committee considering saccharin a medicinal preparation. In a personal statement, complainant said that in both packets the tablets were of the same strength. Both were marked "full strength." Mr. Bracher contended, for the defence, that the charge was justifiable. At the present time the wholesale price was 9*s.* 5*d.* per dozen packets. The "Standard Retail Price List," issued by Mr. Chas. Philip, chemist and druggist, gave the retail price as 1*s.* 4½*d.* At 1*s.* 3*d.* a packet Mr. Oliver was making a profit of 37 per cent. This might be construed as a high price for common commodities like butter, where there was a large weekly sale, but as a matter of fact Mr. Oliver rarely sold more than two packets per week and never renewed his stock until he was down to the last couple of packets. Mr. Bracher produced a price list from a firm dated 1912, in which the wholesale price quoted was 4*s.* 3*d.* per dozen. The pre-war profit was higher than the present rate. Therefore there was no case, as the post-war was less than the pre-war profit. A copy of the November issue of "The British and Colonial Pharmacist" was produced, in which it was stated that a conference of 250 leading chemists had fixed the price at 1*s.* 3*d.* A letter from the Kent County Association of Pharmacists, dated December 15, also gave the retail price as 1*s.* 3*d.* The Committee decided that no case of profiteering had been made out and dismissed the case, one member dissenting.

Sheffield.—The West Riding of Yorkshire (Southern Division) Profiteering Tribunal heard, on December 19, the appeal of G. T. W. Newsholme, Ltd., from a decision of the Sheffield Profiteering Committee ordering them to refund 6*d.* on a tin of Allenbury's rusks, for which 9*s.* had been charged (*C. & D.*, December 6, p. 62). Messrs. Newsholme appealed on the grounds that: (1) The rate of profit made did not exceed the fair average rate earned by persons in the same way of business under pre-war conditions, and was not excessive under the terms of the Profiteering Act, or at all; (2) that the price of sale was not fixed by appellants, but by the manufacturers, Allen & Hanburys, Ltd.; (3) that the appellants were under certain penalties to sell at the price at which they actually did sell to the complainant; (4) that the proceedings were irregular, the solicitors to the appellants not being allowed to address the Committee. Mr. T. E. Ellison, who appeared for the appellants, said that the case involved an important principle. Allenburys rusks were a proprietary article sold at a price fixed by the manufacturers. He urged that the calculations of profit should always be made on current prices, and not upon the price at which the commodity was bought: he instanced the decision of a Profiteering Committee that this should be done. Otherwise, he pointed out, it would be quite possible for two branches of the same firm to be selling at different prices. Mr. J. Austen, Ph.C., managing director of G. T. W. Newsholme, Ltd., gave evidence and instanced several cases in which the prices had been reduced. Mr. A. E. Marsh, Ph.C. and barrister-at-law (Allen & Hanburys, Ltd.), said the price had been raised through the cost of raw material and other causes. Mr. E. Preston, Ph.C., President of the Staffordshire Pharmaceutical and Chemical Society, said in evidence that it was only possible to trade on current prices, as competition would make it impossible to trade on invoice prices. Further evidence having been given the court was cleared. On resuming, the Chairman (Earl Wharncliffe) said that the Tribunal were unanimous in their opinion that the appeal should be allowed; at the same time, they thought that the attention of the Board of Trade should be called to the conduct of Allen & Hanburys, Ltd., in putting up the price, and a letter would be written also calling attention to the proceedings of the Proprietary Articles Trade Association.

Stratford, Essex.—At a recent sitting of the Profiteering Committee a tradesman was ordered to refund 1½*d.* on a charge of 5*d.* made for ½ oz. of powdered cinnamon, the complainant stating that the price at another shop was 7½*d.* per ¼ lb.

Willesden.—At the sitting of the Profiteering Committee on December 18, Mr. R. R. Pratt, chemist and druggist, 94 Canterbury Road, N.W., was the respondent in a case in which 4*s.* per oz. was the price alleged to have been charged for spirit of camphor. Mr. Pratt, in reply, said that neither he nor any of his assistants had ever charged such a price. They worked with a recognised price list (produced), which was kept at the retail counter. In this case a number of articles had been purchased by a child, and, the change being incorrect when the child got home, it was assumed that there had been an overcharge for this article. He added that no chemist in England ever made such a charge; chemists were professional men, not robbers. The case was unanimously dismissed, several members of the Committee expressing their satisfaction with the defence.

Prosecution.

At Willesden Police Court on December 19, Fredk. H. King & Co., chemists, Chamberlayne Road, Kensal Rise, N.W., were summoned at the instance of the Willesden Profiteering Committee for selling a nail-brush at an unreasonable profit. It was stated for the Committee that the defendants' invoice showed a cost of 4*s.* 6*d.* per dozen, and this brush was purchased for 1*s.* by the customer. Mr. Pierron, solicitor, urged in defence that a mistake had been made by the assistant in pricing the brush. It should have been 6*d.* The Magistrate: Do they ever make mistakes in favour of the customer? Mr. Pierron: Oh, yes. Last week an assistant in the employ of my clients sold a 15*s.* bottle of scent by mistake for 2*s.* 6*d.* Defendants were fined 7*l.*, with 2*l.* 2*s.* costs.—At the same court a tradesman was fined 15*l.*, with 2*l.* 2*s.* costs for selling at 8*d.* a pint vinegar which had cost him 3*d.* a pint.

Organising the Drug-trade.

Drug-Union Meetings.

The members of the Bradford branch of the Amalgamated Society of Pharmacists, Drug and Chemical Workers met on December 15, Mr. G. H. Etchells presiding. It was pointed out that there is a serious danger of so many prospective qualified or unqualified assistants being available after the July examinations that there may not be sufficient situations open, and that unless the assistants are united, there might be much undesirable undercutting in salaries. After a discussion on working hours and the Government's Hours of Employment Bill, the secretary (Mr. J. H. Batley) was instructed to send to each Bradford member of Parliament a resolution urging that when the Bill comes before the House they shall do their utmost to secure the deletion of the clause excluding managers, foremen, and persons occupying responsible positions from the application of the Bill. The levy imposed to assist in the Cheltenham dispute was readily paid by the Bradford members. It was stated by the Committee that it is hoped to secure another address by Mr. Gillian in January. Non-members may secure information from the secretary, Mr. J. H. Batley, 3 Wightman Street.

Varying Hours of Business.—The Committee of the Institute of Bookkeepers has adopted a resolution urging that, in order to relieve traffic, business houses should, where possible, be so arranged that different businesses should start and close at different hours.

Legal Reports.

Thermos Flask Dispute.—In the City of London Court, on December 18, before Mr. Assistant Registrar Tattershall, a claim was made by Thermos, Ltd., Byron House, 4 Finsbury Street, E.C., against Mr. R. Evan Parker, pharmacist and optician, 52 Hertford Street, Coventry, for 1*l.* 6*s.* 9*d.* for repairs to thermos flasks. The defendant raised a set-off and counter-claim for 6*l.* Dorothy A. Bartholomew, in the employment of the plaintiffs, gave evidence as to the price of repairs being fair and reasonable. It appeared that the defendant sent certain flasks to the plaintiffs to be repaired in 1917. Soon after, a fire occurred on the plaintiffs' premises, and the flasks sent by the defendant to be repaired were destroyed. Plaintiffs then made an offer to replace the flasks to be repaired by such new goods as they were able to manufacture, they receiving any difference or giving credit notes, as the case turned out. Their case was that the defendant accepted the offer, and that they had sent him replacement goods, some of which he had returned, and which they had on hand, still awaiting his instructions, although these had not yet been received. The defendant, however, said the plaintiffs had sent him quart flasks instead of pint flasks, which his customers would not accept. There had been great delay in getting the goods, and some of his customers had declined to wait. The Assistant Registrar pointed out that between November 1918 and June 1919 plaintiffs were continually writing to the defendant for his instructions, and the defendant had failed to show him (the Assistant Registrar) any letter in which he set out what it was he required the plaintiffs to do. It was not until six months after that the defendant wrote to the plaintiffs. He thought in the circumstances the best thing to be done was to enter judgment for the plaintiffs for the amount of their claim, and in order to protect the defendant he would order that the judgment be not enforced for a month to enable the defendant to bring another action embodying his set-off against the plaintiffs.

Advertisement Orders.—In the City of London Court, on December 18, before Mr. Assistant Registrar Tattershall, a claim was made by Mr. William Reed and Mr. L. M. Reed, proprietors of the "Grocer," Eastcheap Buildings, Eastcheap, E.C., against the Roberts' Capsule and Stopper, Ltd., 65 Canterbury Road, for 6*l.* 19*s.* 9*d.* for advertisements inserted from June 19, 1915, to October 5, 1918. Mr. R. G. Harrison, solicitor for the plaintiffs, said that for many years there had been a running order for advertisements between the parties. The advertisements had been paid for up to a certain date. The defence now raised was that the order had been countermanded. The advertisement was inserted week by week for years, and it was now suggested by the defendants that on a certain date in June 1915 they informed the plaintiffs' representative that they did not wish to continue the advertisement any longer. The plaintiffs' answer to that was that the advertisement had never been countermanded. The advertisements were continued to be inserted until 1918, and when payment was asked for correspondence ensued, in the course of which the defendants said they had stopped the advertisement. Evidence was given by the plaintiffs' cashier that the accounts for advertisements were sent in annually, and that their collector called on the defendants in July 1916, when he received payment on account to June 1915. In February 1917 an account was sent to the defendants and was not paid, and in August 1917 an account was again rendered. It was for the amounts of those accounts that the claim was now being made. The order for the advertisement was given on a form which contained a footnote, "Please insert until countermanded." Mr. Harrison, for the plaintiffs, said his contention was that if the defendants wished to countermand the order they should have done so in writing. The Assistant Registrar said he thought the defendants were bound to give a written notice countermanding the order for the advertisements. The defendant's secretary said he did not think that was necessary in point of law. If, however, it was held that an ordinary contract could not be countermanded by verbal instructions, then he must admit there was no defence to the plaintiffs' claim. The Assistant Registrar, in giving judgment for the plaintiffs for the amount claimed, and an allowance for two witnesses, thought for the future the plaintiffs should insert in the advertisement order form, "Please insert until countermanded in writing." It would be far safer. Mr. Harrison said that matter was being considered. It was, however, quite unreasonable to suppose that advertisements could be stopped on any statement made to anybody the defendants might meet.

Passing-off Case.—In the Chancery Court, on December 19, Mr. Kerley, K.C., supported a motion in the action of Horlick's Malted Milk Co. *v.* the Aerated Bread Co., Ltd., to restrain the defendants from passing off or selling other malted milk than Horlick's when malted milk is ordered. Counsel for the defendants said he was not in a position either to deny the allegations that plaintiffs made or to attempt to justify. It was a fact that certain things had been done which could not be justified, but his submission was that what had been done had been entirely inadvertent. No doubt in some cases, when customers demanded Horlick's malted milk, they had been supplied with another form of malted milk. He was prepared to give an undertaking substantially in the terms of the motion not to sell or supply Hooker's malted milk or any other preparation not being the plaintiffs' malted milk as and for Horlick's, or pass off or attempt to pass off Hooker's malted milk or any other such preparation as and for Horlick's malted milk. Mr. Kerley: That will be sufficient to meet the case. Counsel for the defendants said he was prepared to give a perpetual undertaking in that form, and to pay the plaintiffs' costs. Mr. Kerley asked for damages, and said he would be content with 40*s.* Counsel for the defendants assented to paying this sum as damages. His Lordship directed the motion to be treated as the trial of the action subject to defendants giving a perpetual undertaking in the terms mentioned and paying 40*s.* damages and costs.

Bankruptcy Report.

Re George Edward Ellis Newton (trading as G. E. Newton & Co.), 74 Great Tower Street, E.C., wholesale chemist. A sitting of the London Bankruptcy Court was appointed to be held on December 19, before Mr. Registrar Francke, for the public examination of this debtor. Mr. F. T. Garton, official receiver, reported that the debtor had not attended at the department since his preliminary examination (*C. & D.*, November 29, p. 73), nor had he replied to letters which he apparently had received, as they had not been returned to the building. His Honour made an order for the statement of affairs to be lodged within three weeks, and for the public examination of the debtor to stand adjourned.

Associations' Winter Session.

Harrogate.—The Harrogate Pharmaceutical Association held a meeting on December 11, the President (Mr. Illingworth) in the chair. Dr. Kerr-Pringle, M.C., gave an instructive lecture on *My Experiences on the Western Front.* The lecture was well illustrated by diagrams, maps, and photographs, and many amusing stories were told. A hearty vote of thanks was accorded.

Wolverhampton.—A meeting of the Wolverhampton Chemists' Association was held on December 17, Mr. C. M. Warner (President) in the chair. Replies from firms written to regarding the protection of the sales of their proprietary articles were read. Mr. Higgs was recommended as a candidate for the Proprietary Articles Trade Association Council election. After a discussion it was resolved to advise the local chemists to open on December 27 from 10.30 A.M. to 12 noon.

New Companies and Company News.

P.C. means Private Company and R.O. Registered Office.

MERCHANTS AND PRODUCERS, LTD. (P.C.).—Capital, 125,000*l*. Objects: To carry on the business of chemists, druggists, chemical manufacturers, flour millers, etc., and to adopt an agreement with H. W. Richards. The first directors are: H. W. Richards, W. F. Rainforth, and Viscount Drumlanrig. R.O., 123-5 Newington Causeway, London, S.E.

A. GREAVES & SON, LTD. (P.C.).—Capital, 8,000*l*. Objects: To take over the business of chemists and druggists carried on by A. W. Greaves and S. C. Greaves at Chesterfield as "A Greaves & Son." The directors are: A. W. Greaves, Rye Hill House, Chesterfield, chemist; S. C. Greaves, 198 Ashgate Road, Chesterfield, chemist; and Mrs. E. M. Greaves.

IDRIS & CO., LTD.—The ordinary general meeting was held at the Midland Grand Hotel, St. Pancras, London, N.W., on December 19. Mr. T. H. W. Idris occupied the chair, and in moving the adoption of the annual report of the directors, and the balance sheet, said he was very glad to be able to present a satisfactory balance sheet. The year had been a difficult one, owing to the high prices and shortage of materials, but they were able to show a return and also an increased profit as compared with the previous year (*C. & D.*, December 16, p. 63). The increase was not confined to one section of the trade, but there had been a general increase in connection with all their beverages. After referring to the re-instatement of the men who were on service, Mr. Idris said in addition they have engaged a number of other disabled soldiers. The company is anxious to employ as many of these men as possible. With regard to the leasehold and freehold properties, these showed a slight decrease as compared with last year. This was due to depreciation written off some of the leaseholds, less a deposit paid on the purchase of the head lease of one of the leasehold properties. Where leases have fallen in improved rentals have been obtained. In his opinion the various properties, if realised, would show a considerable increase over the valuations in the balance sheet. Capital employed in branch businesses and subsidiary companies showed a slight decrease on the corresponding figure last year. An increase in the stock in trade of 19,675*l*. was accounted for by the increased cost of materials and much larger stocks of materials and bottles than in 1918. Plant and machinery showed a slight decrease of 177*l*. Additional plant was bought during the year, but the usual depreciation had been written off. A considerable sum in renewals and new plant during the next two or three years is necessary. Under the heading of sundry debtors a decrease of 15,598*l*. was shown. This was explained by the fact that in 1918 there were large outstanding balances in contracts. All bad debts had been written off, and a sufficient reserve set aside to meet doubtful debts. Investments during the year showed an improvement of 23,500*l*. The profit and loss account indicated the satisfactory balance of 28,350*l*. A short discussion followed the motion for the adoption of the report, and Mr. Bishop replied to questions. A shareholder recommended that the company's investments should take the form of short-dated securities, such as 5 per cent. War Loan. This suggestion, Mr. Bishop explained, coincided with the policy of the company. The report and balance sheet were afterwards adopted unanimously, and the two retiring directors, Mr. E. K. Bishop and Mr. W. T. W. Idris, were re-elected. Sir James Bradford, who is resigning after twenty-two years on the Board, in responding to the expression of regret at his impending retirement, congratulated the Board on the issue of what he considered the soundest balance sheet they had ever issued.

THE use in France of saccharin and other sweetening agents in food products is to continue "for three years after the date of the cessation of hostilities."

New Books.

Clowes, F., and Coleman, J. B. *A Treatise on Qualitative Analysis, Adapted for use in the Laboratories of Colleges and Technical Institutes.* Ninth edition. 9 in. × 5½ in. Pp. 400. 84 illustrations. 12*s.* 6*d.* (J. & A. Churchill, 7 Great Marlborough Street, London.) [A well-known text-book for students of qualitative analysis, much used by pharmaceutical aspirants. Part I. deals with the apparatus and operations which are employed in qualitative analysis. Part II. describes the analytical reactions which are used for the detection of substances and the methods of applying these reactions. Part III. sets out the procedure for systematically employing these reactions for the detection of the composition of substances, and includes the usual analytical tables. Part IV. contains suggestions for fitting and furnishing the laboratory, together with lists of the apparatus, reagents, and chemicals, which are required for analytical work. The present edition has been recast and enlarged, the reactions of the metals, for example, being now placed in the natural order of the metal groups. The number of reactions of organic substances and the rarer elements has been increased. The book is a companion of the "Quantitative Analysis" of the same authors.]

Hewer, J. Langton. *Baby from Bud to Blossom.* 6¾ in. × 4 in. Pp. 218. (Eagle, Star, and British Dominions Insurance Co., Ltd., Royal Exchange Avenue, London, E.C.) [A beautifully produced book (leather bound and illustrated in colours), with forewords by Dr. C. Addison, Dr. Eric Pritchard, and Lady Leslie Mackenzie, which every mother would be glad to possess. The book gives plenty of practical information on the problems which confront a mother. One short chapter deals with the insurance facilities offered by the insurance company which issues the book.]

Macmillan, A. D. *Income-tax, how to Avoid Overcharges and obtain Repayments.* 8¾ in. × 5⅝ in. Pp. 61. 1*s.* 6*d.* (E. Wilson, 54 Threadneedle Street, London, E.C. 2.) [A useful book for those who are doubtful as to whether they are paying more income-tax than they need.]

Molesworth, Sir Guildford. *Decimal Tables.* 4¾ in. × 3 in. Pp. 118. 2*s.* 6*d.* (E. & F. N. Spon, Ltd., 57 Haymarket, London, S.W. 1.) [Consists entirely of tables, giving the decimal equivalents of length, square measure, cubic measure, weight, angular measurement, time, and money. Among the tables are decimal equivalents of grains and scruples to the apothecaries' pound; ounces to pounds (avoir.); pounds (avoir.) to pounds (apoth.); pounds to tons (avoir.). In the money tables it is stated that a "mil" is a thousandth part of a pound under the proposed new system of British money.]

Randall, H. A. *The "Financial Times" Investments Account Book.* 8 in. × 8½ in. Pp. 120. 8*s.* 6*d.* net. (The Financial Times, Ltd., 72 Coleman Street, London, E.C. 2.) [A ruled book for the systematic keeping of accounts of investments in stocks and shares. Explanatory notes and tables, showing the yield on stock purchased at stated prices, are provided.]

Sargeant, F. Pilkington. *Elementary Organic Chemistry Adapted for the Use of Pharmaceutical and Medical Students.* Second edition. 7½ in. × 5⅜ in. Pp. 100. 4*s.* (H. K. Lewis & Co., Ltd., 136 Gower Street, London, W.C. 1.) [Contains chapters dealing concisely with formulas, hydrocarbons, alcohols and ethers, aldehydes and ketones, the fatty acids, esters, dihydric and trihydric alcohols and their derivatives, carbohydrates, aromatic compounds and cyanogen compounds. The appendices are charts for the detection of organic acids and important alkaloids, etc.]

Topham, J. *French Technical Words and Phrases, on English-French and French-English Dictionary of Technical and Business Terms and Phrases used in Commerce, Arts, Sciences, Professions, and Trades, with Appendix of Tables of Money, Weights, and Measures.* Third edition. 6×3 in. Pp. 318. 5*s.* (E. Marlborough & Co., 51 Old Bailey, London, E.C.) [Contains among the technical words a selection dealing with chemistry, chemical products, medicine, dentistry, and photography.]

Transactions of the Sixth International Dental Congress. Compiled by H. R. F. Brooks. 10 in. × 7⅛ in. Pp. lxii + 753. 30*s.* (The British Dental Association, 19 Hanover Square, London, W. 1). [A handsome volume, giving a list of members, the reports and original papers, with the discussions upon them, and an account of the demonstrations which took place at the International Dental Congress held in London at the same time as the outbreak of the Great War. The reports on such subjects as pyorrhœa and local anæsthesia are excellent summaries of the state of dentistry in 1914, and may usefully be included in the general reading of all who practise dentistry.]

Westminster Wisdom.

By the "C. & D." Parliamentary Representative.

PATENTS AND TRADE-MARKS BILLS.

THE House of Commons, on December 17, considered the amendments made by the House of Lords in the Patents and Designs Bill and the Trade-marks Bill. The amendments were agreed to.

TRAINING CHEMISTS.

In reply to a question in the House of Commons, on December 18, regarding education in the Army, the Secretary of State for War stated "it is obvious that neither chemists, doctors, nor teachers can be fully trained in a few months. It is, however, possible to say that a considerable proportion of the students above mentioned were definitely assisted in beginning or continuing such training."

ARRIVAL OF GERMAN DYES.

Sir A. Geddes, on December 22, informed Mr. Sugden that about 350 tons of dyes had actually arrived in this country from Germany. Under the terms of the Peace Treaty dyestuffs were furnished as part reparation. In view of the urgent requirements of this country, arrangements had been made for supplies to be obtained from Germany in advance of formal ratification of the treaty. Further quantities were now on the way, and consumers of dyestuffs were invited to state their requirements.

INCREASE OF RENT (AMENDMENT) BILL.

The third reading of the Increase of Rent (Amendment) Bill took place in the House of Commons on December 19. The Bill gives a wider discretion to the Court to examine all the circumstances of the case, and in particular the alternative accommodation available for the tenants. The effect will be that, if no alternative accommodation is in fact available, the Court will only be able to make an order for possession if the circumstances are quite exceptional. In order to meet the immediate emergency, the Bill further enables orders for possession which have been made before the passing of the Act, but which have not been executed, to be set aside if they cannot be brought within the terms of the Bill, and further power is taken in cases for what are called landlord's possession to suspend the operation of an order on such terms as the payment of rent or mesne profits and otherwise as the Court thinks reasonable.

PROFITEERING (CONTINUANCE) BILL.

The second reading of the Profiteering (Continuance) Bill, which carries on the Profiteering Act until April 19, took place in the House of Commons on December 17. Mr. Bridgeman, Parliamentary Secretary of the Board of Trade, stated that up to the end of November 1,935 complaints had come before local Profiteering Committees. Of these 1,300 were dismissed, in 398 a price had been declared or a refund ordered. In eighty-two cases prosecutions have been ordered. Of these twenty-eight have come up for trial, and in twenty-four convictions have been obtained. Seventy-one cases have been referred to Appeal Tribunals. The expenses up to April 19 will probably not reach the 75,000*l.* voted by the House. Among the critics of the Bill was Captain W. Benn, who said the Profiteering Act, a piece of "stunt" legislation, was rushed upon the House just before the adjournment in order to satisfy public clamour, in spite of the fact that a Committee of Inquiry had been appointed. Two things might have been done. The inquiries might have been set on foot, and the public informed of the result of those inquiries. That has not been done. He was very doubtful whether any Act of Parliament was required at all to enable the Food Controller and the President of the Board of Trade to do what obviously was within their powers, to make inquiries into prices. What the public will be interested in is the fact that 1,900 Committees have been appointed, and 1,935 cases have been heard. That is one case per Committee. Twenty-four convictions have been established, and 25,000*l.* have been spent. That is an average of about 1,000*l.* per conviction, and the price of living has gone up from 115 per cent. to 131 per cent. above the pre-war level. The Bill was read a third time on December 18.

IMPORT RESTRICTIONS REMOVED.

Asked what steps he proposed to take in view of the judgment of Mr. Justice Sankey that import restrictions made under the Customs Consolidation Act, 1876, are illegal, the President of the Board of Trade stated in the House of Commons, on December 18, that the existing restrictions on importation are apparently all affected by the judgment, except, firstly, firearms and military arms and parts thereof, ammunition and explosives; and, secondly, the articles specifically prohibited under Section 42 of the Customs Consolidation Act, 1876, or other enactments. In view of the judgment, the Customs have been instructed, pending either reversal on appeal or legislative action, to allow the importation of all articles affected thereby. An appeal against the decision is being entered. Early in the new Session the Government will press forward legislation to secure powers to reimpose restrictions of the limited scope indicated in the Imports and Exports Regulation Bill. Meanwhile, he thought it was desirable that importers should clearly understand that, in the event of these powers being conferred by Parliament, or in the event of the judgment being reversed on appeal, licences to import restricted goods will not be granted merely on the ground that the goods had been ordered between now and the date of the re-establismment of the restrictions, but will be based solely on consideration of the reasonable requirements of the country. He also wished to say to the House that, in face of the judgment, the Government will not be in a position to restrict importation from countries affected by a collapse in exchange unless or until definite enabling legislation for the purpose is enacted by Parliament.

Later on in the sitting a discussion took place as to the Law Officers who were responsible for the Orders, and as to the effect of the statement regarding contracts for forward deliveries. Incidentally Sir A. Geddes referred to the restrictions on the importation of cocaine and opium, which are also made under the Customs Consolidation Act and are also illegal.

SANATORIUM BENEFIT.

Dr. Addison stated in the House of Commons, on December 17, that the number of persons in England and Wales who were receiving residential treatment for tuberculosis under the National Health Insurance Acts on December 1 was approximately 8,350. He had no precise information as to the numbers who were in receipt of domiciliary or dispensary treatment on that date. The numbers of persons who have received sanatorium benefit in England and Wales during the past five years are as follows:

1914	31,793
1915	29,741
1916	29,850
1917	31,566
1918	35,430

The amount expended by public authorities in England and Wales on the treatment of tuberculosis during the financial year 1917-18 was approximately 1,550,000*l.* This is the latest period for which complete figures are available. It is estimated that the expenditure during the present financial year will exceed 2,000,000*l.* Expenditure defrayed by loans is in both cases excluded.

All persons recommended for sanatorium benefit under the National Health Insurance Acts are receiving treatment in one form or another, but uninsured persons are in several areas not so fully provided for. The accommodation at present available for residential treatment is inadequate to meet the needs of the country as a whole. Steps have already been taken to expedite as far as possible the provision of additional residential accommodation. The question of securing proper treatment for each case at a sufficiently early stage is dependent to a large extent upon a correct diagnosis being made, and upon the willingness of patients to accept the appropriate form of treatment in the early stages of the disease.

Draft Medical Benefit Regulations, 1920.

We summarised the chief changes proposed in the Draft Medical Benefit Regulations, 1920, in The Chemist and Druggist, November 8, p. 60. There has been considerable discussion at various meetings of chemists, and it appears to be desirable to indicate exactly the proposed changes. We therefore print those parts of the Draft Regulations which particularly interest our readers, those parts printed in italics being new or indicating differences from the Regulations at present in force. The numbering of the regulations has been rearranged in the draft.

Medical List.

4. (4) . . . The Committee shall also send a copy of the list *to each person, firm, or body corporate undertaking the supply of drugs or appliances. . . . At intervals of not more than three months the Committee shall notify each person, firm, or body corporate of any alterations made in the list.*

Prices of Drugs and Appliances.

6. For the purpose of enabling arrangements to be made for the supply of drugs and appliances the Minister shall cause to be prepared a list (in these Regulations referred to as the "Drug Tariff") of the prices on the basis of which the sums to be paid for drugs ordinarily supplied and for the prescribed appliances are to be calculated. *The prices included in the Drug Tariff may be fixed prices, or may be subject to monthly or other periodical variations to be determined by reference to fluctuations in the cost of drugs and appliances.* The Drug Tariff shall also include a method by which payment for drugs not mentioned in the Tariff is to be calculated.

List of Persons Supplying Drugs and Appliances.

8. (1) The Committee shall, after consultation with the Pharmaceutical Committee, prepare a list of the names and places of business of the persons, firms, and bodies corporate (in these Regulations referred to as "persons supplying drugs or appliances") on the terms offered by the Committee and approved by the Minister, and the list shall indicate whether they have undertaken to supply drugs or appliances or both, and shall distinguish those who are entitled to dispense medicines, and *shall also indicate the days and hours on which the several places of business are open.*

Scheme for Securing Proper Pharmaceutical Service.

9. (1) *The Committee and the Pharmaceutical Committee shall jointly prepare a scheme for securing that one or more places of business of persons supplying drugs or appliances in each district shall at all reasonable times be open to insured persons, and for this purpose the scheme shall specify the days and hours on and at which each such place shall be open, and, subject to the approval of the Minister, the scheme shall form part of the terms of service of persons supplying drugs or appliances.*

(2) *In the event of the Committees failing to agree on the scheme the matter shall be referred to the Minister, whose determination shall be final.*

(3) *Subject to the approval of the Minister the scheme may from time to time be amended jointly by the Committee and Pharmaceutical Committee, or in default of agreement between the two Committees, by the Minister, and the provisions of the scheme for the time being in force shall form part of the terms of service for persons supplying drugs or appliances.*

Arrangements for Supply by Practitioners of Drugs and Appliances.

10. (2) *Where an insured person who is resident in a rural area at a distance of more than one mile from the nearest chemist on the list of persons supplying drugs and appliances notifies the Committee that he desires to obtain drugs and appliances from the insurance practitioner in whose list he is included*, the Committee shall require that practitioner to supply to that person until further notice such drugs and appliances as aforesaid (except in the case of a practitioner who is not in the habit of dispensing drugs for patients other than insured persons, and provided reasonable notice be given).

Investigations by Pharmaceutical Service Sub-Committee.

29. (1) . . . *The person desiring to make any complaint* (against a person supplying drugs and appliances) *shall within six weeks after the event which gave rise to the complaint give written notice to the clerk to the Committee . . . provided that, notwithstanding failure to give notice within the said period, the Sub-Committee may investigate the matter if they are satisfied that such failure was occasioned by illness or other reasonable cause. . . .*

Inquiries Relating to Persons Supplying Drugs or Appliances.

62. (1) For the purpose of holding an inquiry as to whether the inclusion or continuance of a person supplying drugs or appliances in the list of a person supplying drugs or appliances to insured persons would be prejudicial to the efficiency of the service the Minister shall constitute an Inquiry Committee composed of a barrister-at-law or solicitor in actual practice, and two others persons who, if any body has been established for the purpose by the Joint Committee, shall be selected from that body—*and of whom one at least shall be a registered pharmacist.*

First Schedule.

Dealing with the terms of service for medical practitioners.

Prohibition of "Rept. Mist."

8. (10) A practitioner is required to order on a form, provided by the Committee for the purpose, such drugs and prescribed appliances as are requisite for the treatment of any patient. *The order shall be signed by the practitioner with his own hand, and shall not be written in such a manner as to necessitate on the part of the person supplying the drugs or appliances to a previous order.*

Third Schedule.

Dealing with the terms of service for persons supplying drugs or appliances.

Withdrawal from List.

3. (1) *A chemist is entitled at any time to give notice to the Committee that he desires to withdraw his name from the list, and his name shall be removed therefrom at the expiration of three months from the date of such notice, or of such shorter period as the Committee may agree. Provided that if such notice is given by the chemist within one month after the issue to him by the Committee of a notice informing him of a proposed alteration in the terms of the service two months shall be substituted for three months . . . or if representations have been made to the Minister that the continuance of the chemist on the list would be prejudicial to the efficiency of the service he is not entitled to withdraw his name from the list except with the consent of the Minister. . . .*

Places and Hours of Business.

5. (2) *At each place of business at which a chemist supplies drugs or appliances he is required* (i) *to exhibit a notice, to be provided by the Committee in the form prescribed in Part IV. of this schedule, and* (ii) *exhibit at times when the place of business is not open, and in such a manner as to be visible at such times a notice, to be provided by the Committee in the form prescribed* (given below), *indicating the days and hours on and at which the places of business of other persons supplying drugs or appliances in the immediate neighbourhood are open.*

The notice referred to is as follows:

National Health Insurance.

When this shop is closed the nearest shops for the supply, to insured persons, of medicines and appliances are:

Provision of Containers.

6. *If a person upon presenting an order for any drug or appliance for which a bottle or other vessel, the price of which is specified in the Tariff, is necessary, requests the chemist to supply such bottle or other vessel, and deposits with him the price thereof . . . the chemist shall supply such bottle or other vessel, and shall upon the return of it in a clean condition pay back the sum so deposited.*

Drugs, etc., to be Supplied Without Charge.

8. All drugs and appliances shall be supplied to the person presenting such order as aforesaid free of charge to that person: *Provided, nevertheless, that the chemist shall sell to any one of the persons mentioned in Sect. 13 of the Sale of Food and Drugs Act, 1875, or to any person authorised by such person at the price usually charged to private customers any drug or medicine prescribed or specified on the appropriate prescription form provided by the Committee for the use of insured persons, and signed by an insurance practitioner.*

Births.

JONES.—At 54 Marylands Road, London, W. 9, on December 8, the wife of D. Pugh Jones, chemist and druggist (manager, Lewis & Burrows, Ltd., Edgware Road, W.), of a daughter.

LATTIMER.—At 33 Penerley Road, Catford, London, S.E. 6, on December 18, the wife of H. Lattimer, C.R.A. (Burkett Sharp & Co., Ltd., Mincing Lane, E.C. 3), of a son.

Deaths.

AKEHURST.—At 64 Clyde Road, Preston, Brighton, on December 12, Mr. Arthur Frederick Akehurst, chemist and druggist, aged seventy-three.

ARKLE.—At Lancaster, recently, Ellen Laura Haill, wife of Mr. William Arkle, chemist and druggist, 13 Penny Street, aged seventy-three.

CRAVEN.—At Pontefract, on December 19, suddenly, Mr. Frederic Craven, chemist and druggist, Horsefair, aged eighty-one. At one time Mr. Craven was the proprietor of the oldest liquorice factory in Pontefract. He was also a well-known member of the St. Oswald Lodge of Freemasons.

HAZELL.—The death is announced, recently, at Mossel Bay, of Dr. Frederick Hazell, one of the oldest and most highly respected medical practitioners of Capetown. Owing to his retiring disposition he was not largely in the public eye, but those whose privilege it was to know him will remember his unassuming work, especially amongst the poor of the city. Dr. Hazell came to South Africa with his parents in 1862 as a youth, and after leaving school started life in a pharmacy. Subsequently he joined the staff of the Kimberley Hospital, and after some years of service decided, on the advice of the late Sir Starr Jameson, to study for the medical profession. After a course at Guy's Hospital he took his M.B. degree at London University in 1893, becoming also a member of the Royal College of Surgeons and the Royal College of Physicians the same year. The following year he started practice in Capetown, and has resided there since then, working assiduously at his profession.

HEY.—At Heath House, Hebden Bridge, on December 19, Mr. David Hey, chemist and druggist, aged eighty. Mr. Hey was the son of the late Mr. Thomas Hey, chemist and druggist, and succeeded to his business, which had been in the family many years. He officiated as vicar's warden at Hebden Bridge Parish Church for upwards of half a century, and was also a member of the Todmorden Board of Guardians.

LAWMAN.—At 119 Preston Drove, Brighton, on December 14, Emily Mary, wife of Mr. Joseph Lawman, formerly of 86 St. James's Street and New Steine, Brighton, aged sixty-six.

RUSHTON.—At 10 Hall Green Parade, Birmingham, on December 13, of pneumonia, Mr. Frank Harvey Rushton, chemist and druggist, aged forty-seven. Mr. Rushton was a native of Birmingham, and served his apprenticeship there with Snape & Sons, Great Hampton Street. After a course of study with Mr. F. H. Alcock, F.I.C., Ph.C., he qualified in 1898. He became the proprietor of two Birmingham pharmacies, and in the course of twenty years' residence there had made a wide circle of friends. He leaves a widow and two sons. The funeral took place at Yardley on December 17. In addition to relatives and other friends, there were present: Messrs. H. O. Lloyd (President), J. W. Atkinson and H. H. Marshall (Vice-Presidents), Jeffrey Poole (treasurer), and F. Smith (secretary), representing the Birmingham Pharmaceutical Association; Messrs. Francis (President), Bell (treasurer), and Shakespear (secretary), representing the local branch of the Ucal Federation; and the following pharmacists—Messrs. Bolus, Bramley, Buckingham, Green, Hampton, Howard, Knowles, Spurway, C. Thompson, C. V. Thompson, H. B. Thompson.

Died on Service.

BARRAND.—Bombardier Percy William Barrand, R.F.A., has died at Boston, aged twenty-three. Prior to enlistment, Bombardier Barrand was with Grimble & Kent, chemists, Boston. In 1917 he was awarded the Italian bronze medal; subsequently he was invalided home, suffering from wounds and gas-poisoning. Military honours were accorded at the funeral.

Personalities.

MR. JOHN M. HUMBLE, chemist and druggist, Northfield, Birmingham, has been elected a Fellow of the Zoological Society of London.

MR. H. G. GREENISH, Professor of Pharmaceutics to the Pharmaceutical Society of Great Britain, has been awarded the degree of doctor, *honoris causa*, by the University of Paris.

MR. W. A. KIRBY, B.Sc., son of Mr. William Kirby, M.Sc., Ph.C., ex-President of the British Pharmaceutical Conference, received on December 19 at Manchester University the degree of Master of Science.

COMMODORE HENRY A. POTTER (Potter & Clarke, Ltd., London, E. 1), has been entertained to dinner by the members of the Nore Yacht Club at Southend-on-Sea prior to his departure on a second business trip to Australia and New Zealand.

MR. RICHARD MAYLIN, who has terminated his engagement with Brotherton Ratcliffe & Co., Ltd., Winchester House, Old Broad Street, London, E.C., with whom he has acted as secretary and manager of the chemical and drug department, has now joined A. H. Gilbert & Co., chemical merchants and agents, 10 Philpot Lane, E.C. 3.

COUNCILLOR A. E. BEARDMORE has been elected chairman of the Wolverhampton Art and Free Library Committee; Councillor F. A. Willcock of the Parks and Baths Committee; and Councillor J. H. Coleman of the Technical Committee. Mr. F. J. Gibson, J.P., is chairman of the Medical Benefit Committee of the Wolverhampton Insurance Committee; there are thus four chemists taking part in the public life of the town.

MR. G. CLARIDGE DRUCE, LL.D., J.P., Ph.C., has been re-elected chairman of the sanitary committee of the Oxford City Council. This is Dr. Druce's twenty-second year of office in that position, his fifteenth year as vice-chairman of the Oxford Public Library, and his tenth as charity representative of the Provincial Grand Lodge of Oxfordshire. The University of Oxford has recently conferred on Dr. Druce by decree the degree of Master of Arts.

MR. W. H. SAUNDERS (Ayrton, Saunders & Co., Ltd., Liverpool), who is on a tour of the world, is sending some interesting letters to correspondents in England. On November 28, in the course of a letter from Victoria, British Columbia, he writes: "I am simply astounded at the magnitude of the drug trade in America . . . the most important and prominent corner stores are drug stores. I have interviewed largely both the wholesale and retail, and am amazed at the enormous turnover . . . in the very town in which I am writing, the biggest (or one of the biggest) drug stores has a huge café, not only in connection with, but actually part of the shop. I enclose a menu [an artistic four-page production 9½ inches by 6¾ inches]. . . . Window-dressing is a big feature here, even in the small country town." In another letter, Mr. Saunders remarks: "The words in common everyday use in business life are 'system,' 'standardisation,' 'equipment,' 'organisation,' and 'service.' Those five terms not only appear in their business dictionary, but are really and actively carried out. . . . I am sailing next week for New Zealand and Australia, then on to Japan and China." Speaking at the Rotary Club, Victoria, on November 27, Mr. Saunders explained to the members how it was that Ayrton, Saunders & Co., Ltd., had never experienced any industrial trouble, attributing this happy condition to a realisation that the interests of capital and labour are mutual.

Insurance Act Dispensing.

A Record of matters concerning Chemists' interests in the National Health Insurance Acts.

ENGLAND.

Wolverhampton.—The Pharmaceutical Committee met on December 15, Mr. V. J. Gibson, J.P., presiding. The following statistical data was supplied for the quarter ended September 30 :

	3 Months	4 Months
Number of prescriptions	... 18,978	65 49/
Average price per prescription...	... 4.5 *d.*	4 62*d.*
,, dispensing fee... ...	... 3.81*d.*	3 83*d.*
,, cost ,, ...	... 8.36*d.*	8.44*d.*
,, ,, per insured person	... 5. 1*d.*	18.52*d.*
Frequency per insured person ..	... .62	2.17

December Drug Tariff.

The following are the alterations for December in the Drug Tariff for England and Wales issued by the Ministry of Health :

Lower: Acid. acetic., 9½*d.* lb. ; ammon. phosph , 4*s.* 3 *l.* lb., emul. olei morrhuæ B.P.C., 2*s* 6*l.* lb. ; ext. casc. sagr. sicc. 1*s.* 3*d.* oz ; ext. viburn. liq., 12*s.* lb ; homatrop. hydrobrom., 9½*d.* gr. ; hydrarg perchlor., 8.. 9*d.* lb. ; liu. belladon. meth., 9*s.* lb ; liu. opii meth., 6*s.* 2*d.* lb. ; methyl sulphonal, 7*s.* 8 *l.* oz. ; phenacetin., 1*s.* 1*td.* oz. ; phenazon , 7*s.* 2*d.* oz. ; phenol hthaleiu, 2 . oz ; pot. permang., 5*s* 8 *l.* lb. ; sodii sulphocarb., 3*s.* lb. ; sulphonal, 6*s.* 8*d* oz. ; syr tolut., 1*s.* 6*d* lb ; tab. phenolphthaleiu g . i , 1.50*d.* ; ditto gr. ii., 1.86*d.* per doz. ; tr. benzoiui co., 8*s.* lb. ; tr. iodi mit , 7*s.* 8*d.* lb ; bandages, muslin. 4 in., 5.04*d.* each.

Higher: Ammon. brom., 4*s.* 9*d.* lb. ; argent nit., 5*s.* 9*d.* oz. ; argent. nit. indur., 5*s.* 9*d.* oz. ; argent. nit. mitigat., 3*s.* 10*d.* ; oz. ; bals. peruv., 2*s.* 1*d.* oz. ; bism. carb., 19*s* 6*d.* lb. ; bism. ; salicyl., 1*s.* 6*d.* oz. ; bism. subnit., 18*s.* 6*d.* lb. ; camphora (flowers), 22*s.* 6*d* lb. ; cocain. hydrochlor. 7*s.* 8*d* dr. ; ext. ergotæ, 16*s.* 9*d.* oz ; ext. ergot. liq , 0*s.* 6*d* lb. ; ext. malti 1*s.* 3*d* lb. ; fer i et ammon. cit., 6*s.* lb. ; hexam ua. 11½*d.* oz. ; hydrarg. iod. rub., 1*s.* 9*d.* oz ; hydrarg. oxid. flav., 11*s.* 6*d.* lb. ; hydrarg. subchlor., 11*s* lb. ; hydrargyrum ammo., 12*s.* lb. ; hydrargyrum c. creta., 4*s.* 6*d.* lb ; hydrargyrum oleat., 9*s.* 6*d.* lb. ; inf. cinch acid. (ex couc.). 6*s.* 8*d.* lb. ; liu. campb., 7*s.* 4*d.* lb. ; liu c mph. am. meth , 6*s* 8*d.* lb. ; liu. chlorof., 7*s.* 8*d.* lb ; lin. methyl. sal. co B .C., 14*s.* 3*d.* lb. ; lin. sap. meto , 3*s* 2*d.* lb ; liu. terebinthinæ, 4*s.* 3*d.* lb. ; liu. tereb. acet , 6*s.* lb. ; liq. formaldehyd., 2*s.* 6*d.* lb. ; menthol, 5*s.* oz ; methyl salicylas, 7*s.* 8*d.* lb. ; ol. caryoph., 27*s.* 6*d.* lb. ; ol eucalypt., 5*s.* 3*d* lb ; pot. brom, 5*s* 3*d.* lb ; pulv. lobeliæ co B.P.C., 5*s* 3*d.* lb. ; quin. sulph , 4*s.* 1*d.* oz. ; resorcinum 2*s.* 8*d.* oz. ; sodii brom., 4*s.* 6*d.* lb. ; sodii phospb eff., 5*s.* 3*d* lb. ; syr. aurant-i, 2*s.* 5*d.* lb. ; syr calc. lactophosph., 3*s.* 1*d.* lb ; syr. cascaræ aromat , 3*s.* 11*d* lb ; syr. chloral, 3*s.* 5*d* lb. ; syr cod iuæ p osph , 4*s.* 5*d.* lb ; syr. ferri iod., 3*s.* 3*d.* lb ; syr. ferri phosph ; 1*s.* 6*d.* lb. ; syr. glycerophosph. co B.P.C., 3*s.* 3*d.* lb. ; syr limonis, 1*s.* 9*d* lb ; syr. pruni virg., 2*s.* 1*d.* lb. ; syr. rhei, 2*s.* 7*d.* lb. ; syr. scillæ, 1*s.* 4*d.* lb ; syr. seuuæ 2*s.* 4*d.* lb. ; syr. zingib. 1*s.* 11*d.* lb. ; tr. quin. ammon., 6*s.* lb. ; ung. hyd. am. dil. B.P.C., 4*s.* lb. ; zinci sulphocarb., 3*s* 4*d.* lb. Bandages, white. open wove 1 in. by 3 yds., 1·38*d.* ; 2 in. by 4 yds . 2·75*d.* ; 2½ in. by 4 yds., 3·46*d.* ; 3 in. by 4 yds , 4·15*d.* each. Lints, unmedicated, 1 oz., 4 25*d.* ; 2 oz., 7·92*d.* ; 4 oz , 15·84*d.* ; 8 oz., 29·00*d.* ; 1 lb., 54 0*d* ; boric 1 oz., 2·92*d.* ; 2 oz., 5 5 *d.* ; 4 oz., 10·50*d* ; 8 oz. 19·0 *d.* ; 1 lb., 35·00*d.* Wool, cotton, 8 oz., 12·50*d.* ; 1 lb., 23 0 *d.*

Trade Notes.

Red Squill Extract, which is recommended as a rat poison, is obtainable from The British Drug Houses, Ltd., Graham Street, City Road, London, N. 1. It is a liquid extract, and is used to prepare bait by mixing it with oatmeal or biscuit-powder, sweetened with sugar. The bait requires to be freshly made.

Arthur Berton, Ltd., 15 and 17 Worship Street, London, E.C. 2, have extended their factory of surgical dressings and druggists' sundries, and for the coming season have produced many new designs in bathing caps, bath gloves, sponge bags, holdalls, etc. These new samples will be in the hands of their travellers early in January.

Fuerst Bros., Ltd., chemical merchants, 17 Philpot Lane, London, E.C. 3, are distributing to their customers a handsome folding desk blotting pad with a diary, calendar, and movable almanack at the left-hand side. The company are also sending out a novel paperweight and hand-blotter combined. The blotter (4¼ in. by 3 in.) is attached to a glass slab, and is of a prepared substance which readily absorbs ink, and is renewed by rubbing the surface with glass-paper.

James Woolley, Sons & Co., Ltd., Victoria Bridge, Manchester, supply, for the twenty-second year, "The Scientists' Reference Book and Diary," a handsome leather-covered pocket volume (5½ in. by 3 in.), with pencil. The contents of the reference portion justify the title of the book more fully than ever, comprising as they do copious volumetric data, units of heat, light, and electricity, and a table of the chemical composition of foods, in addition to information on more "popular" lines concerning other branches of science. Concise hints on first aid (including cases of poisoning) and a list of scientific societies are other outstanding features of this well-planned diary.

Season's Greetings.—At this time of the year many advertisers desire to convey to the drug-trade the season's wishes—A Merry Christmas and a Happy New Year. The following business houses have advertisements in this and recent issues of The Chemist and Druggist :

Allen & Hanburys, Ltd., Bethnal Green, London, E.
Bailey, R., & Son, Marriott Street Mills, Stockport.
Bell, J., & Croyden, Ltd., 80 Kensal Road, London, W. 10.
British Diamalt Co., Bishops Stortford.
Burgoyne, Burbidges & Co., Ltd., East Ham, London, E.
Clayton Aniline Co., Ltd., 68½ Upper Thames Street, London, E.C. 4.
Cook, E., & Co., Ltd., Bow, London, E. 3.
Cox, A. H., & Co., Ltd., Brighton.
Elliott Optical Co., 104-5 Great Saffron Hill, London, E.C. 1.
Eucryl, Ltd., 138 Borough High Street, London, S.E. 1.
Evans Sons Lescher & Webb, Ltd., Liverpool and London.
Icilma Co., Ltd., 37-43 King's Road, St. Pancras, London, N.W. 1.
Lonabarc Trading Co., Ltd., 5 Finsbury Square, London, E.C. 2.
Mandall & Co., Ltd., Tower Works, Newcastle-on-Tyne.
Maw, S., Son & Sons, Ltd., 7-12 Aldersgate Street, London, E.C. 1.
May, Roberts & Co., Ltd., 7-13 Clerkenwell Road, London, E.C. 1.
Potter & Clarke, Ltd., 60-64 Artillery Lane, London, E. 1.
Robinson & Sons, Ltd., Chesterfield.
Sanagen Co., Ltd., Sheepcote Lane, Battersea, London, S.W. 11.
Ucal, Cheltenham.
Wright, Layman & Umney, Ltd., Southwark Street, London, S.E. 1.

Information Department.

INFORMATION WANTED.

132/22. "Pleasall" corn plane or razor.
130/65. Olive syrup (commercial quality).
131/62. "Ingot" brand absorbent cotton wool (Drofco series).
130/19. "Lizerom."
Woodman's Instanta.
129/49. Jones' "Heal-all" ointment.
130/10. Chypre Perfume (Dichara & Co.).
133/6. Young's combination tablets.

INFORMATION SUPPLIED.

"Albulactin," 132/31
Cascaromat, 124/59
Cash registers, 126/31
Dental cream in bulk, 127/24
Hæmatine crystals, 125/57
Histogenol (naline), 127/10
Intramine, 123/44
"Kananga" water, 112/68
Methyl alcohol, 125/44
"Milton" disinfectant, 116/34
Paris Medicine Co.'s specialties, 116/1
Rectified spirit, 126/6
Santol midy, 115/59
Taff's asthmalene, 119/55
Vraseo, 125/1

Observations and Reflections.

By Xrayser II.

"A Merry Christmas"

is a phrase we have hesitated to use of late years. During the war it was manifestly inappropriate in its usual acceptation, and even last year our losses were too recent and our outlook still too uncertain for it to come naturally to our lips. We might indeed have used it in some of the older senses of the word "merry"; "merry England," for instance, meant pleasant England; "the merry month of May" is the delightful month; and Trevisa, in his version of Bartholomæus Anglicus, says that cassia is "swete and mery of smeil." A graver meaning even than these attached to the word later on; Sir Thomas More says that his household was "mery in God," and the translator of his "Utopia" makes him speak of a "meri (that is, a happy) death." In the Prayer-book Psalter, too, we read, "God has gone up with a merry noise"; Sternhold and Hopkins could write, "Serve Him with mirth" (same root as *merry*); and Tate and Brady of "awful mirth." In connection with Christmas, however, the word has always connoted a certain hilarity; "God rest you merry, gentlemen," and "Holly with his merry men," can hardly be interpreted otherwise. Old as the latter carol is, the phrase "A Merry Christmas" does not seem to occur much before Queen Anne's time in our literature; Shakespeare has "A merry Shrovetide"; but not, I think, the more familiar greeting, nor does it occur in Ben Jonson's masque of Christmas, in which "minced pies" and other good cheer figure so largely. No doubt the poet would hear of these pies at Welbeck, for "My Lady of Portland" was famous for making them, as the receipts for them, preserved by Jonson's friend Sir Kenelm Digby, show. Selden tells us they were shaped like a coffin in imitation of the "cratch" of Bethlehem, but this seems to be a mistake; "coffin" was a common name for a pie-crust, and Selden's pies look suspiciously like the "mince pigs" of my childhood, which I have been told by a folk-lorist are probably reminiscent of the boar sacrified to the agricultural deities at the old pagan festival of Yule. Pagan and Christian customs no doubt blend in our observance of this season, and on both counts we may this year heartily wish one another a merry Christmas.

The Continuance

of the Profiteering Act without change until May 19 is not an unmixed evil, since it saves us from such drastic additions to its powers as those demanded by the London Profiteering Committees. One of these additions—that referring to wholesalers—would be welcome enough, but not at the price of the others. As regards retailers, the Act is more than stringent enough as it stands, and local Committees have not as a rule shown themselves fit to be entrusted with penal powers. I hear that in some districts the Act is having an effect exactly opposite to the one intended. Not only is it, by directing attention to the very haphazard way in which prices have often been fixed, leading to a more scientific estimate of profits which tends to a general increase in price, but the rate of profit actually allowed by Tribunals is, as regards many commodities, higher than has ruled in businesses of a certain class, the result being a levelling up to a higher standard. The fact, if it is one (and I have reason to believe it is), shows how little ground there is for the sad old joke that, like the fish that swallowed Jonah, we "get a great profit out of the water."

The Remarkable Letters

from Mr. Hugo Wolff and Mr. John Humphrey which appeared in your issue of December 13 bring the question of an independent trade-union of chemists to a point that ought to be irresistible to everyone who is not hardened into insensibility by custom and prejudice. Mr. Humphrey, a convinced and loyal adherent of the Society, one of its examiners, and for years the editor of its official journal, in close touch with pharmacists of every shade of opinion, declares bluntly that the Council has not only failed, but confesses that it has failed, as the guardian of our trade interests, and that our salvation lies in the formation of a trade-union; and Mr. Wolff, a member of the Council and, what is more important, a clever and successful man of business, of forceful character, splendid courage, and conspicuous organising ability, offers to engineer the movement for forming such a union, if only those who desire it will throw in their lot with him. Could any conjuncture of circumstances be more favourable than the present? On the one hand we have an effete and discredited Council, timid, distracted, without a policy or the courage to form one; on the other we have young blood combined with old experience—the respective brain-power of the two parties we had an opportunity of comparing in the arguments against the by-law and the simple *non possumus* which was all the majority in the Council could oppose to them. It is true the latter has the services of a singularly acute political intelligence at their call at a salary of 900*l.* a year (a stimulating sum), but he has been engaged on the problem for close upon two years without finding a solution for it. The plain fact is that there is none but the one proposed by Messrs. Humphrey and Wolff and the group of "Progressives."

The Statement

of the Scottish Board of Health in reply to the claim to an increase on the Scottish scale contains a reference to England that is well worth consideration, and seems to have provoked a not very flattering comment upon our dispensing practice in the Pharmaceutical Standing Committee's reply to the statement. In this statement our acceptance of lower terms for Insurance dispensing than Scottish chemists demand is cited as a reason for not granting the increase now asked for; in other words, we are represented as depreciating the value of pharmaceutical service in the sister kingdom. If we are really doing this we have here the strongest of all incentives to increase our own demands till this stigma upon our loyalty to the calling we follow is removed. We cannot rest under the imputation of underselling our neighbour. I do not know what truth there is in the rejoinder of the Scottish Committee that dispensing in England is of a lower standard than in Scotland, but I feel inclined to resent it. A similar statement is made with regard to English prescribing. I confess I have not noticed any marked superiority of Scottish over English prescribing, though I have seen a good deal of both, and I am led to hope that both statements are mistaken.

The Illegality

of the ban on imports is now virtually admitted by Government, only arms, ammunition, and explosives, and a few things specifically prohibited by statute being now treated as within its scope; but the restrictions are to be reimposed by statute as soon as possible, and our present freedom will be short-lived unless sufficient opposition is aroused to prevent it. Prohibition by statute will, however, if it comes, be preferable to prohibition by Proclamation, and though, in the present position of political parties, we have very doubtful protection in Parliament from interference with business such as cannot but hamper us, we may hope to be a little less at the mercy of departments and ministers.

The Leeds Association,

if it did not get much wisdom from the members of Council who attended the meeting of December 10, at least gave them several useful hints, and this, probably, is the main advantage of such visits from high quarters. Everything that is of any practical value in the reported speeches came from members of the Association themselves, and I must hope that our Councillors, like Antæus, renew their strength when they thus touch solid earth. Mr. Sargeant was present in a double capacity, and his contribution to the discussion was of unique value. I mean, of course, his condemnation of those members of Council who "go about the country blackguarding their colleagues." A certain famous circular leaps to mind. Mr. Sargeant can hardly have forgotten it.

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DISINFECTANTS
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THE M.R.P.L.
5s. per annum, from 194 BISHOPSGATE, LONDON, E.C.2
THE MINIMUM RETAIL PRICE LIST has been adopted by 150 Chemists' Associations and several thousand individual pharmacists. It is revised monthly by a committee of 24 practising pharmacists, assisted by 250 local representatives.
PRE-WAR RATES (wholesale and retail) for calculating comparative profits.
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A TRIPLE SHIELD is thus provided for meeting charges under
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"Stick to the M.R.P.L."—Sir William Glyn-Jones, at Worcester, Nov. 13, 1919.

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Buy from the Actual Manufacturers,
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have stood the test of **40 years,** and still maintain their reputation for **unrivalled excellence.**
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Editorial Articles.

The First Year of Reconstruction.

THE year whose last sands are now running, though it has been, from the business point of view, a singularly prosperous one for chemists, has not been so favourable to the highest interests of British pharmacy. In several respects our craft has lost ground, and in some instances the fault has been that of pharmacists themselves. The Pharmaceutical Society that has our interests in keeping has been lax and inert when it should have been vigorous and active, and has shown a weak obstinacy in the one case in which it ought to have bowed to the will of the majority of its members. We are bound to put the blame upon the Society at large, for, although it was the Council that dictated the great betrayal of August last, the members of the Society formally acquiesced in it. The tactics by which it was jockeyed into this are a lasting disgrace to the dominant clique in the Council, and the whole Society suffers in reputation through letting itself be induced to surrender its trust. For the worst feature of the whole affair is that we held our position in trust, not for the great body of pharmacists only, whether connected with the Society or not, but the public at large also looked to us to uphold the principle of the Pharmacy Act, 1868, at once the palladium of the craft and the safeguard of the public. We have no wish to revive old quarrels or keep alive a futile resentment; but so long as those are in power (not only unrepentant but exultant) who were primarily responsible for this dereliction of duty, it would be a crime to forget it. The evil they did is not yet over, and we have to see that no future action of theirs or ours extends it. The year opened with the adoption of by-laws which showed in one important particular the same disregard as the more iniquitous later on in the year for the prevailing wish of the trade. The curriculum, the acceptance of which by the Privy Council was, as we have been officially told, purchased by the undertaking to pass the other by-law later on, was desired by nobody but a few cranks.

THE GREAT BETRAYAL.

EXAMINATION BY-LAWS.

Another provision of these January by-laws, the increase of the examination fees, was also resented as unnecessary and over-burdensome, but in other respects the new regulations for the

Qualifying examination, the division of its subjects into two groups, and the admittance to re-examination of candidates who have failed in any one subject in either group, were warmly welcomed. These provisions came into force in the autumn of the year, and will no doubt justify themselves. In other respects the Pharmaceutical Council has sinned by defect rather than by active ill-doing. It showed early in the year a lamentable laxity with regard to the Ministry of Health Bill, and the Boards of Health set up by it; and, although Scottish chemists were actively on the alert and set us an excellent example in insisting upon the inclusion of pharmacists on these Boards, we Southrons have been slow to follow it. It is a pity that, in fetching our President from Scotland, we did not import a little of the Scottish spirit. The Council cannot be blamed for the passing of such Acts as the Venereal Disease Act or the Profiteering Act; these, in so far as they bear unduly upon us, are the measures by which the gods afflict us, and we are compelled to submit to them; but our leaders, whether or not it was possible to have obtained some mitigation of their harsher features as they affect us, might at least have made some protest (which has not yet been done) against the injustice of some of their provisions. The Profiteering Act has been in operation too short a time as yet for a final opinion upon it, but, insignificant as its results have been so far as we are concerned, it has proved sufficiently vexatious to justify a demand for its amendment, if not for its repeal. The judgment of the High Court decided the vexed question as to whether the dispensing of physicians' prescriptions came within the purview of the Act. The Judges, being guided by legal precedent, decided that dispensing is a "sale." The judgment does not, however, preclude a chemist from charging for his work in the same way as he has been accustomed to. It has led to the promotion of various schemes of pricing dispensing other than the flat-rate plan chiefly in vogue, so that in case of prosecution a good reason can be put forward for the charges made to a customer. The dispensing costing schemes of Mr. C. T. Allen, Mr. John Netherway, the Sheffield Pharmaceutical and Chemical Society, the Bradford Pharmacists' Association, and the North London Pharmacists' Association have been fully dealt with in our columns. In regard to the profit on drugs, which has also had to be justified under the Profiteering Act, the trade has been assisted by the publication of various retail price lists, but a difficulty has been felt in obtaining comparative pre-war prices. We think that the comparison of the prices of about a hundred commonly used drugs which we published has helped to show how best such evidence can be obtained. In another part of this issue we analyse the results of the prosecutions against chemists that have taken place during the time the Act has been in force. This analysis emphasises the futility of the Act, and forms a striking proof of the injustice which this panic legislation has inflicted on chemists.

THE PROFITEERING ACT.

At the end of the year we stand in relation to the National Insurance Act dispensing service pretty much where we did at its beginning. What the Council or its creature and delegate, the Local Associations Executive, has done or is doing for us we do not quite know, the insane policy of secrecy being still kept up; but the rumours of a 50 per cent. advance in our present fees, the prohibition of "rep. mist.," and the establishment of a rota for late-hour service wherever necessary, have received a sort of semi-official sanction as likely to be adopted. Scotland in this matter too takes a line of its own as bold and definite as ours is timid and uncertain. In its management and discussion of the internal affairs of the Pharmaceutical Society the Council has shown the same weakness as in its external policy. There has been a brave boast of efficiency, a persistent determination to keep the conduct of affairs in its own hands, and to prevent any other body from usurping its functions, along with a confessed bewilderment as to what those functions—or some of them—really are, or shrinking from putting its pretensions to the test, and much talk of organisation and federation with little or no result. The new scheme for the election of the L.A.E. on a territorial basis, decided upon at the April Conferences, has not proved a brilliant success; it was ostensibly an experiment designed to prepare the way for a confessedly impossible scheme of territorial election for the Council, and from such tentative, half-hearted (not to say self-contradictory) measures little good was to be hoped. Those who foresaw this have not been disappointed. The electorate showed its indifference to the scheme by polling less than half of its members, the old vicious duality of government remains, and the new L.A.E. is no more legally competent than the old one to act as a representative of the trade in accordance with the Whitley Report. At this election five out of nine candidates who had supported "the unjust by-law" were rejected.

INSURANCE DISPENSING TERMS.

Meantime, Scotland has again shown us the way, and again we have hitherto declined to follow it. A Federation such as we need has been formed there, while we are still waiting for a legal decision we are more than half afraid of. In February, when the application of the Trade Boards Act to the aërated water trade first excited our apprehensions, the Council assured us that this matter did not concern us, and it was only in answer to external pressure that it began to bestir itself later. When the danger became obvious the secretary, speaking for the Council, declared that no other body would be allowed to interfere in matters affecting pharmacy; but it is doubtful whether the Council would have done anything had not the Ministry of Labour invited it in March to send a representative to a Conference of employers to consider the Trade Board question. The various schemes proposed for meeting the requirement of the Government measure have occupied us more or less ever since, and the issue is still doubtful. Assistant pharmacists have meanwhile been more successful in organising themselves than the Society as a whole. There is, indeed, a plethora of associations for their defence, and it is to be regretted that the rivalry between them has to some extent injured the cause they all have at heart. The Society by its fussy interference has—no doubt with excellent intentions—done not a little to foster these rivalries. It would have been better advised to leave the business in the assistants' own hands, maintaining a sympathetic attitude, but at the same time a strict neutrality—of the "benevolent" kind—between them. As the year closes it seems as though the National Association and the Drug Union will join forces to form a strong trade union for chemists' assistants. The position of Army dispensers, and especially of such of them as are pharmacists, has engaged much attention throughout the year, but little or nothing has resulted since the Instruction of January 3 admitting pharmacists to the rank of staff-sergeants. Commissioned rank is still denied them. In June the attention of chemists who practise dentistry was called to a menace of their right to do so by the Report of the Departmental Committee on the Dentists Act, 1878, proposing to forbid the combination of dental practice with any other business. Opposition to this proposal was most active in Ireland, our Society being quiescent in the matter. In the reinstatement of demobilised students in pharmacy the Pharmaceutical Society has, however, been active. Concessions were made with regard to the Preliminary examination, and a substantial sum was raised by voluntary subscription as a War Auxiliary Benevolent Fund for the help of those whose prospects had suffered through the war. There was a little scandal caused by the temporary borrowing of some part of the funds by the Society, but no real harm was done—thanks, perhaps, to the dust raised by the protests of the Progressive members of the Council and their friends outside. Turning now to non-political matters, the Diamond Jubilee of the *C. & D.* comes into view as, for us, one of the outstanding events of the year. This we celebrated by a special article reviewing the history of the paper in our issue of September 13. Several valued correspondents were good enough to endorse our claim (we hope modestly made) to have from the first and all through our career done our best, not unsuccessfully, to advance the best interests of the craft and of its individual members. The British Pharmaceutical Conference of the year was held in London in July under

TRADE BOARDS.

the presidency of Mr. Wm. Kirkby, and was exceptionally well attended. The President's stirring address dealt with the subject of research, never of more urgent importance than at present, and many admirable papers on pharmaceutical matters were read. During the year three of the outstanding figures in pharmacy have been removed from us by death, two of them at a ripe age, when their more active years were over, and what it was in them to do might be regarded as done. Samuel Ralph Atkins, who died March 26 at the age of ninety-one, was a member of the Pharmaceutical Council from 1876 to 1907, and was successively its Vice-President, its treasurer, and its President. None of those to whom we have ever looked for guidance was more respected than he. Sir Peter Wyatt Squire, who died September 16, aged seventy-two, was also a member of the Council for a short time, but the work he did for pharmacy lay in another direction; first, in conjunction with his father and afterward on his own account, he edited for many years the Companion to the Pharmacopœia, which has perhaps done more than any other work of the kind for the instruction and education of British pharmacists. John Charles Umney died October 19 in the fulness of his powers, being only fifty-one years of age. His work again was different (as it was more various) from that of the other two who predeceased him. His scientific researches, especially perhaps those into essential oils, were of the highest value, and the service he rendered in the political field in connection with the famous patent medicine inquiry was invaluable. Mention must also be made of one or two others, less directly connected with pharmacy, whose deaths took place during the year—Sir Boverton Redwood, Bt., for a time assistant lecturer to his father, Theophilus Redwood, at the Square Pharmacy School, and Mr. Henry Walker, for many years publisher of the *C. & D.* This article is already a long one, and we must sum up the results of the year's events as they affect pharmacy in a very few words. Do we stand in a better or a worse position now than when the year began? We cannot honestly say we think our position has improved. The "reconstruction" for which we so ardently longed when the year opened has been very imperfectly accomplished; most of the problems then confronting us are still unsolved, and those that have been settled have not all been settled as we could wish. It is to be hoped that from past mistakes we have learnt how to avoid similar ones in the future, and that the failure of the Pharmaceutical Society to meet the requirements of the time has taught us to depend upon ourselves. The policy of "lying low" under "the blows of circumstance" has been shown to be foolish; it does but invite further assaults. We must have a fighting organisation willing and able to protect and guide us.

Obituary.

Insurance Dispensing Terms.

The deadlock continues between the Local Associations Executive and the Ministry of Health regarding the remuneration for pharmaceutical service. We understand that the Ministry has again expressed the desire to make a substantial increase on the present terms, but has named no definite amount. It appears that the fight is likely to be between the L.A.E.'s demand for a 50 per cent. increase and the Ministry's offer of a smaller amount. In these circumstances it has been decided to call a conference of Local Associations delegates to discuss the attitude to be taken up at the next interview with the Ministry. The conference is to take place on January 6, and it is probable that the interview with the Government officials will be on the same day. The L.A.E. has furnished further proof that establishment charges have of late increased so much as to justify the demands for larger dispensing-fees for Insurance work. We give in this issue those draft new Medical Benefit regulations which affect chemists, as this subject is sure to come before the conference. The new requirements in the regulations are indicated by being printed in italics. In regard to Scotland we are able to state that a settlement has been reached between the Pharmaceutical Standing Committee (Scotland) and the Scottish Board of Health. The latter body sent a long letter (dated December 17) to the Committee, which was distinctly conciliatory. The Board stated that 1920 is not likely to prove a normal or very favourable year as regards calls on the Drug Fund. Wholesale prices show no sign of any material decrease in face of a world shortage of supplies. The Treasury has now given a definite undertaking that a grant in aid will be provided to meet the risk of discounting. The compromise suggested in regard to dispensing-fees is that the dispensing-fees shall be at the rate of the Scottish scale of 1913, *plus* 25 per cent. (*i.e.* approximately 5*d.*), subject to adjustment on the few points where the addition of 25 per cent. brings out odd farthings. A meeting of the General Council of Panel Chemists (Scotland) was held on December 18, and in view of abnormal circumstances it was agreed to accept the 25 per cent. increase without conceding that the amount is adequate. The acceptance is for one year only, with the right of a break at the end of each quarter and reserving the question of a review of the whole situation in the light of experience before making arrangements for 1921. The Board's reply is that the last condition is already provided for by the regulations. The position may be summed up as an honourable compromise. It is to be hoped that the negotiations on this side of the Tweed will result in an agreement equally advantageous to chemists.

Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

Effect of Radium Irradiation.—Kailan ("Zeit. f. angew. Chemie") submitted chloroform and carbon tetrachloride to the action of radium irradiation for a period of three years, light being excluded. He found that in the chloroform 0.5 per cent. had been affected, hexachlorethan being formed, while in the case of carbon tetrachloride chlorine and hydrochloric acid had formed from the phosgene produced, the alteration amounting to 0.75 per cent.

Doraldina.—Paolini ("Boll. Chim. Farm.," No. 19, 1919) has prepared a new hypnotic by combining bromine with pyramidon. This new compound contains about 23 per cent. of bromine and 77 per cent. of ethyl-pyramidon. It is administered hypodermically in doses of 0.5 gram. Per os the dose is from 0.5 to 2 grams; the latter is to be regarded as the maximum dose. It occurs in the form of white needles, readily soluble in water, with a slightly bitter taste.

Tiargirio. — is the name given by Paolini to a new antiseptic for the treatment of wounds. It is described as dithio-salicylate of mercury, $C_{14}H_8O_6S_2Hg_2$, and contains 53.75 per cent. of mercury, 8.60 per cent. of sulphur, and 37.65 per cent. of salicylic acid. It occurs as a brownish-yellow powder, insoluble in water, alcohol, and ether. It is decomposed on heating. A 3-per-cent. ointment, prepared with vaseline, has been found useful in the treatment of eczema and psoriasis.

Opium Chemistry.—Jermstad ("Jour. Suisse de Pharm.," 23/29, 1919) has sought to solve the debated question of who was the original discoverer of morphine, and comes to the conclusion that Derosne first published a note on the isolation of morphine from opium in 1804. The presence of meconic acid was first established by Séguin in 1804, and the hypnotic action of morphine was established by Sertürner in 1806, and the latter also demonstrated that morphine was an organic base—*i.e.*, an alkaloid.

Evaluation of Digitalis Leaves.—Sluyters ("Berl. klin. Wochenschr.," 34, 1919) has investigated the statement made by Heffter that by extracting digitalis leaves with absolute alcohol for eight hours in a Soxlet extractor more active principles are obtained than by Straub's method of fractionated distillation with cold water and 50-per-cent. alcohol, and comes to the conclusion that Heffter's method yields a greater proportion of substances possessing a lethal action on the frog than is the case with Straub's process, which, however, yields more bodies having a specifically digitalis action on the heart. It therefore follows that the extraction with concentrated alcohol yields, in addition to the specific digitalis substances, other bodies lethal to the frog. This finding shows that great care must be exercised in assuming that a greater lethal effect on the frog is a sign of a larger proportion of digitalis bodies, as this conclusion is not always justified, and this can be demonstrated by comparative tests on cats, in which a preparation showing an increased lethal action on the frog is not relatively more lethal to the cat.

Proof Spirit Conversion Tables.

By F. C. J. Bird.

Explanatory Notes.

REBATE of part of the duty on Immature Spirit employed solely in the preparation of articles recognised by the Commissioners of Customs and Excise as used for medical purposes is allowed by the Immature Spirits Act, 1915 (1*s.* 6*d.* per proof gallon), the Finance Act, 1918 (15*s.* 3*d.* per proof gallon), and the Finance Act, 1919 (20*s.* per proof gallon). The total amount of "additional" duty recoverable on spirit bought after April 30, 1919, is thus 36*s.* 9*d.* per proof gallon, which is equivalent to about 2*l.* 18*s.* per gallon of rectified spirit. In the claim for repayment quantities must be expressed in "bulk gallons" to the third decimal place, and all strengths of spirit converted to "proof." Much tedious calculation may be avoided in carrying out the conversions by using the tables given on the following pages. The figures in the tables are based on the latest official specific gravities and proof strengths issued in 1916 under the authority of the Commissioners of Customs and Excise. The proof-spirit equivalents are generally carried to the third decimal place, but this last figure is not in every case absolutely accurate, and is then the nearest approximation. The following examples will show the working of the tables :

TABLE I.—METRIC.

(See p. 76.)

To convert metric measure of any B.P. diluted alcohol to proof gallons.

Example.—Convert 4 litres 870 millilitres of 45 per cent. alcohol to proof gallons.

Referring to Table I., in column 6, opposite 4 litres (column 1) will be found 0.693; opposite 800 millilitres, 0.139 (column 6); and opposite 70 millilitres, 0.012 (column 6).

Taking the sum of these :

4 litres	...	= 0.693
800 millilitres		= 0.139
70 ,,		= 0.012

the equivalent is found to be 0.844 gallons of proof spirit.

TABLE II.—IMPERIAL.

(See p. 77.)

Example.—Convert 8 galls. 5 pts. 13 fl. oz. of 70 per cent. alcohol to proof gallons.

8 galls....	...	=	9.810 (Table II., cols. 4 and 6)
5 pts. ...	...	=	0.766 (,, ,, ,, 1 ,, 6)
13 fl. oz.	...	=	0.099 (,, ,, ,, 2 ,, 6)

10 675 gallons of proof spirit.

Example.—Convert 18 fl. oz. 5 fl. drs. of 60 per cent. alcohol to proof gallons.

0.118
0.004

0.122 gallons of proof spirit.

LARGE QUANTITIES.

In order to increase the utility of Table II. and adapt it to the conversion of large quantities of spirit, such as are employed on the manufacturing scale, certain figures in the fourth and fifth decimal places have been included. The larger equivalents are then obtained by moving the decimal point either one or two places to the right.

Example.—Convert 349 galls. 5 pts. 13 fl. oz. of 20 per cent. alcohol to proof gallons.

300 galls.	...	=	104.61 (Cols. 4 and 9)
40 ,,	...	=	13.948 (,, 4 ,, 9)
9 ,,	...	=	3.138 (,, 4 ,, 9)
5 pts. ...	...	=	0.217 (,, 1 ,, 9)
13 fl. oz.	...	=	0.028 (,, 2 ,, 9)

Therefore 349 galls. 5 pts. 13 fl. oz. = 121.941 gallons of proof spirit.

NON-OFFICIAL STRENGTHS.

Spirit of any non-official strength is converted by ascertaining from the tables the equivalent in bulk gallons and then multiplying that figure by one-hundredth of the percentage of proof spirit in the spirit under consideration.

Example.—Convert 8 litres 400 millilitres of spirit at 66 o.p. to proof gallons.

8 litres	...	=	1.7598 galls. (Table I., cols. 1 and 2)
400 millilitres		=	0 08799 ,, (,, ,, ,, 1 ,, 2)

1.84779

then 1.84779 × 1.6 (one-hundredth of 166 per cent.) = 3.067 gallons of proof spirit.

Example.—Convert 6 pts. 8 fl. oz. of 60 o.p. spirit to proof gallons.

6 pts.	...	=	0.75 galls. (Table II., cols. 1 and 4)
8 fl. oz.	...	=	0.05 ,, (,, ,, ,, 2 ,, 4)

0.80

and 0.8 × 1.6 (one-hundredth of 160 per cent.) = 1.280 gallons of proof spirit.

Example.—Convert 5 pts. 16 fl. oz. of 30 u.p. spirit to proof gallons.

5 pts.	...	=	0.625 galls. (Table II., cols. 1 and 4)
16 fl. oz.	...	=	0.1 ,, (,, ,, ,, 2 ,, 4)

0.725

0.725 × 0.7 (one-hundredth of 70 per cent.) = 0.507 gallons of proof spirit.

Conversion Factors.

(See p. 78.)

I. METRIC.

Multiply litres and decimals of a litre by the appropriate factor (see Conversion Factor Table I.)

Example.—Convert 8 litres 930 millilitres 70 per cent. alcohol to proof gallons.

8.930 × 0.2697 = 2.418 gallons proof spirit.

II. IMPERIAL.

If one denomination, multiply by the appropriate factor.

Example.—Convert 5 pts. of 20 per cent. alcohol to proof gallons.

5 × 0.0436 (see Conversion Factor Table II., "pints") = 0.218 gallons of proof spirit.

If of more than one denomination (*a*) multiply each separately and add the products; or (*b*) sometimes it may be simpler, although rather less accurate, to reduce to the lowest denomination and multiply.

Example.—(*a*) Convert 3 galls. 17 fl. oz. 5 fl. drs. of 70 per cent. alcohol to proof gallons.

3 galls. ...	× 1.2263	=	3.679 (Factor Table II., "galls.")
17 fl. oz. ...	× 0.00736	=	.13 (,, ,, ,, "fl. oz.")
5 fl. drs....	× 0.00958	=	.005 (,, ,, ,, "fl. drs.")

3.814 gallons of proof spirit.

Example.—(*b*) Convert 7 pts. 10 fl. oz. of 45 per cent. alcohol to proof gallons.

150 fl. oz. × 0.00492 = 0.738 gallons of proof spirit.

Proof Spirit Conversion Tables.

Compiled by F. C. J. Bird.

I. METRIC MEASURE.

—	Equivalent Measure in Gallons and Decimals of a Gallon	Proof Spirit Equivalent (in Gallons) of the following Official Diluted Alcohols used				
		90% Alcohol B.P.	70% Alcohol B.P.	60% Alcohol B.P.	45% Alcohol B.P.	20% Alcohol B.P.
10 litres	2·19975	3·471	2·697	2·312	1·733	0·767
9 litres	1·979775	3·124	2·428	2·081	1·559	0·690
8 litres	1·7598	2·777	2·158	1·850	1·386	0·614
7 litres	1·539825	2·430	1·888	1·618	1·213	0·537
6 litres	1·31985	2·083	1·618	1·387	1·040	0·460
5 litres	1·099875	1·735	1·349	1·156	0·866	0·383
4 litres	0·8799	1·388	1·079	0·924	0·693	0·307
3 litres	0·659925	1·041	0·809	0·694	0·520	0·230
2 litres	0·43995	0·694	0·539	0·462	0·346	0·153
1 litre	0·219975	0·347	0·270	0·231	0·173	0·077
900 millilitres	0·197977	0·312	0·243	0·208	0·156	0·069
800 millilitres	0·17598	0·278	0·216	0·185	0·139	0·061
700 millilitres	0·153982	0·243	0·189	0·162	0·121	0·054
600 millilitres	0·131985	0·208	0·162	0·139	0·104	0·046
500 millilitres	0·109987	0·173	0·135	0·116	0·087	0·038
400 millilitres	0·08799	0·139	0·108	0·092	0·069	0·031
300 millilitres	0·065992	0·104	0·081	0·069	0·052	0·023
200 millilitres	0·043995	0·069	0·054	0·046	0·035	0·015
100 millilitres	0·021997	0·035	0·027	0·023	0·017	0·008
90 millilitres	0·019798	0·031	0·024	0·021	0·015	0·007
80 millilitres	0·017598	0·028	0·021	0·018	0·014	0·006
70 millilitres	0·015398	0·024	0·019	0·016	0·012	0·005
60 millilitres	0·013198	0·021	0·016	0·014	0·010	0·005
50 millilitres	0·010999	0·017	0·013	0·011	0·009	0·004
40 millilitres	0·008799	0·014	0·011	0·009	0·007	0·003
30 millilitres	0·006599	0·010	0·008	0·007	0·005	0·002
20 millilitres	0·004399	0·007	0·005	0·005	0·003	0·001
10 millilitres	0·0022	0·003	0·003	0·002	0·002	0·001
9 millilitres	0·00198	0·003	0·002	0·002	0·001	—
8 millilitres	0·00176	0·003	0·002	0·002	0·001	—
7 millilitres	0·00154	0·002	0·002	0·001	0·001	—
6 millilitres	0·00132	0·002	0·002	0·001	0·001	—
5 millilitres	0·0011	0·002	0·001	0·001	—	—
4 millilitres	0·00088	0·001	0·001	—	—	—
3 millilitres	0·00066	0·001	—	—	—	—

II. IMPERIAL MEASURE.

Pints	Fluid Ounces	Fluid Drachms	Equivalent Measure in Gallons and Decimals of a Gallon	Proof Spirit Equivalent (in Gallons) of the following Official Diluted Alcohols used				
				90% Alcohol B.P.	70% Alcohol B.P.	60% Alcohol B.P.	45% Alcohol B.P.	20% Alcohol B.P.
—	—	—	10	15·7795	12·263	10·510	7·877	3·487
—	—	—	9	14·20155	11·0367	9·459	7·0893	3·1383
—	—	—	8	12·6336	9·8104	8·408	6·3016	2·7896
—	—	—	7	11·04565	8·5841	7·357	5·5139	2·4409
—	—	—	6	9·4677	7·3578	6·306	4·7262	2·0922
—	—	—	5	7·88975	6·1315	5·255	3·9385	1·7435
—	—	—	4	6·3118	4·9052	4·204	3·1508	1·3948
—	—	—	3	4·73385	3·6789	3·153	2·3631	1·0461
—		—	2	3·1559	2·4526	2·102	1·5754	0·6974
—	—	—	1	1·578	1·226	1·051	0·788	0·349
7 pts.	—	—	0·875	1·380	1·073	0·920	0·689	0·305
6 pts.	—	—	0·75	1·183	0·920	0·788	0·591	0·261
5 pts.	—	—	0·625	0·986	0·766	0·657	0·492	0·218
4 pts.	—	—	0·5	0·788	0·613	0·525	0·394	0·174
3 pts.	—	—	0·375	0·591	0·460	0·394	0·295	0·131
2 pts.	—	—	0·25	0·394	0·306	0·263	0·196	0·087
1 pt.	—	—	0·125	0·197	0·153	0·131	0·098	0·043
—	19 fl. oz.	—	0·11875	0·187	0·145	0·125	0·093	0·041
—	18 fl. oz.	—	0·1125	0·177	0·138	0·118	0·089	0·039
—	17 fl. oz.	—	0·10625	0·167	0·130	0·112	0·084	0·037
—	16 fl. oz.	—	0·1	0·158	0·122	0·105	0·079	0·035
—	15 fl. oz.	—	0·09375	0·148	0·115	0·098	0·074	0·033
—	14 fl. oz.	—	0·0875	0·138	0·107	0·092	0·069	0·030
—	13 fl. oz.	—	0·08125	0·128	0·099	0·085	0·064	0·028
—	12 fl. oz.	—	0·075	0·118	0·092	0·079	0·059	0·026
—	11 fl. oz.	—	0·06875	0·108	0·084	0·072	0·054	0·024
—	10 fl. oz.	—	0·0625	0·098	0·076	0·066	0·049	0·022
—	9 fl. oz.	—	0·05625	0·089	0·069	0·059	0·044	0·020
—	8 fl. oz.	—	0·05	0·079	0·061	0·052	0·039	0·017
—	7 fl. oz.	—	0·04375	0·069	0·053	0·046	0·034	0·015
—	6 fl. oz.	—	0·0375	0·059	0·046	0·039	0·029	0·013
—	5 fl. oz.	—	0·03125	0·049	0·038	0·033	0·025	0·011
—	4 fl. oz.	—	0·025	0·039	0·030	0·026	0·020	0·009
—	3 fl. oz.	—	0·01875	0·029	0·023	0·020	0·015	0·006
—	2 fl. oz.	—	0·0125	0·020	0·015	0·013	0·010	0·004
—	1 fl. oz.	—	0·00625	0·010	0·008	0·006	0·005	0·002
—	—	7 fl. drs.	0·00546875	0·009	0·007	0·006	0·004	0·002
—	—	6 fl. drs.	0·0046875	0·007	0·006	0·005	0·004	0·002
—	—	5 fl. drs.	0·00390625	0·006	0·005	0·004	0·003	0·001
—	—	4 fl. drs.	0·003125	0·005	0·004	0·003	0·002	0·001
—	—	3 fl. drs	0·00234375	0·004	0·003	0·002	0·002	—
—	—	2 fl. drs.	0·0015625	0·002	0·002	0·001	0·001	—
—	—	1 fl. dr.	0·00078125	0·001	0·001	—	—	—

Proof Spirit Conversion Factors.

I. METRIC MEASURE.

Litres to Gallons—multiply by 0·2199.

Litres of the B.P. Diluted Alcohols to Proof Gallons.

Litres of	90%	Alcohol	B.P.	to	Proof	Gallons	...	Multiply by 0·3471
,,	70%	,,	,,	,,		...	...	,, 0·2697
,,	60%	,,	,,	,,		...	...	,, 0·2312
,,	45%	,,	,,	,,		...	...	,, 0·1733
,,	20%	,,	,,	,,		...	...	,, 0·0767

II. IMPERIAL MEASURE.

Gallons.

Gallons	90%	Alcohol	B.P.	to	Proof	Gallons	...	Multiply by 1·5779
,,	70%	,,	,,	,,		...	...	,, 1·2263
,,	60%	,,	,,	,,		...	...	,, 1·051
,,	45%	,,	,,	,,		...	...	,, 0·7877
,,	20%	,,	,,	,,		...	...	,, 0·3487

Pints.

Pints	90%	Alcohol	B.P.	to	Proof	Gallons	...	Multiply by 0·1972
,,	70%	,,	,,	,,		...	...	,, 0·1533
,,	60%	,,	,,	,,		...	...	,, 0·1314
,,	45%	,,	,,	,,		...	...	,, 0·0984
,,	20%	,,	,,	,,		...	...	,, 0·0436

Fl. Ounces.

Fl. ounces	90%	Alcohol	B.P.	to	Proof	Gallons	...	Multiply by 0·00986
,,	70%	,,	,,	,,		...	...	,, 0·00766
,,	60%	,,	,,	,,		...	...	,, 0·00656
,,	45%	,,	,,	,,		...	...	,, 0·00492
,,	20%	,,	,,	,,		...	...	,, 0·00218

Fl. Drachms.

Fl. drachms	90%	Alcohol	B.P.	to	Proof	Gallons	...	Multiply by 0·001233
,,	70%	,,	,,	,,		...	...	,, 0·000958
,,	60%	,,	,,	,,		...	...	,, 0·00082
,,	45%	,,	,,	,,		...	...	,, 0·000615
,,	20%	,,	,,	,,		...	...	,, 0·000272

Trade-marks Applied for.

The figures in parentheses refer to the classes in which the marks are grouped, for a list of which, with particulars as to registration, see "The Chemist and Druggist Diary," 1917, p. 220.

(*From "The Trade-marks Journal," November 12, 1919.*)

"Boraline"; for perfumery, etc. (48). By Potter & Clarke, Ltd., 60-64 Artillery Lane, London, E. 1. 394,670.

"Chloe"; for all goods (48). By C. Midgley, Ltd., 5 Mayes Street, Manchester. 395,151.

"Nonspi" on diamond-shaped device; for toilet preparations (48). By the Nonspi Co., 2615 Walnut Street, Kansas City, U.S.A. 395,246.

(*From "The Trade-marks Journal, November 19, 1919.*)

"Ixol"; for goods (1) and (47). By Ridley & Dixons, Ltd., Pack Horse Lane, Carlisle. 393,480/1. (Associated.)

Pioneer Brand F.B., Ltd., London" on oval device; for chemicals (1) and for goods (4). By F. Boehm, Ltd., 15-17 Jewry Street, London, E.C. 3. 394,759/61. (Associated.)

"Bowrolaque"; for chemicals (1). By R. Bowran & Co., Ltd., 4 St. Nicholas Buildings, Newcastle-on-Tyne. 395,216.

"Peemolite"; for wood preservatives (1). By Wm. Butler & Co. (Bristol), Ltd., Silverthorne Lane, St. Phillips, Bristol. 395,356.

"Purifus"; for disinfectants (2). By J. Smith, F. L. Rapley, F. J. W. S. Green, D. D. Smith, and F. B. Jones, 532 Arnold Road, Bow, London, E. 3. 392,932.

"Cilobrac"; for all goods (2). By W. Anderson, Inistore, John Street, Helensburgh, N.B. 395,622.

"Atlas" over picture of Atlas supporting globe bearing word "Preserves," and signature; for all goods (2). By Atlas Preservative Co., Ltd., Windmill Lane Wharf, Deptford, S.E. 8. 394,441. (Associated.)

"Arboretas"; for disinfectants and insecticides (2). By McDougall Bros., Ltd., 66 Port Street, Manchester. 395,738.

"Bonora"; for medicinal chemicals (3). By T. and H. Vickerman, 27 Meadow Street, Preston, Lancs. 393,457.

"Bitda Brand," etc.; for a medicine (3). By W. R. Morgan, 91 High Street, Rhymney, Mon. 390,831.

"Sanova Brand a Tonic"; for a tonic (3). By J. Mackenzie Turner, Bath Parade, Bristol. 393,071.

"Talmet Brand a Medicated and Antiseptic Preparation for use in Connection with Artificial Teeth"; for a medicated antiseptic preparation (3). By R. and R. J. Withey, 566 Old Kent Road, London, S.E. 1. 394,041.

"Nosteoline"; for medicinal chemicals (3). By H. E. Matthews, 30 The Mall, Clifton, Bristol. 394,092.

"Pearlone"; for medicinal chemicals (3). By Jewsbury & Brown, Ardwick Green North, Manchester. 394,354. (Associated.)

"Brazier"; for medicinal chemicals (3). By the Thermogene Co., Ltd., Queen's Road, Haywards Heath, Sussex. 395,295. (Associated.)

"Rhugol Brand Ointment"; for medicinal chemicals (3). By H. Wolff, 21 Hart Grove, Ealing Common, London, W. 5. 395,456.

"Allied" on diamond-shaped device under words "Allied Machinery Co. of America"; "Almacoa" on diamond-shaped device; for goods (8). By Allied Machinery Co. of America, 120 Broadway, New York, U.S.A. 391,705/709. (Associated.)

"Shako"; for all goods (47). By W. Taylor & Sons, Jackson Street, Albert Road, Farnworth, near Bolton. 394,937.

"Manu-Mollient"; for skin emolients (48). By G. B. Key, 58 High Street, Kirkcaldy. 392,560.

"Fremol"; for toilet articles (48). By Freese & Moon, Ltd., 59 Bermondsey Street, London, S.E. 1. 394,331. (Associated.)

"Slick"; for perfumery, etc. (48). By Boots Pure Drug Co., Ltd., 37 Station Street, Nottingham. 394,589.

"Zinovian"; for perfumery, etc. (48). By H. J. and M. J. Watson, 196 Stockport Road, Levenshulme, Manchester. 394,796.

"Catseye"; for toilet-soap powder (48). By Gospo, Ltd., 33 Waterloo Road, London, S.E. 1. 395,317.

Pharmaceutical Society of Great Britain.

Evening Meeting in Edinburgh.

THE second evening meeting of the session of the North British Branch of the Pharmaceutical Society of Great Britain was held at 36 York Place, Edinburgh, on December 17. Mr. James Jack, Ph.C., F.L.S., J.P., occupied the chair. Five communications were submitted. The first was a

NOTE ON ETHYLMORPHINE SULPHATE.

By James Leslie Thomson, B.Sc.

In the course of some work on ethylmorphine it was found necessary to know the amount of water of crystallisation, and the solubility, of the sulphate of this alkaloid. These data were not to be found in any of the usual books of reference. They were therefore determined. The ethylmorphine sulphate used had been prepared in the laboratory. It was crystallised twice from hot water, using charcoal as a decolorising agent. The crystals were freed from mother liquor, as far as possible, on the pump. They were washed with alcohol, and then allowed to dry spontaneously. A melting-point determination gave the m.p. as 207° C. The water of crystallisation was estimated by placing a weighed sample in a hot-air oven at a temperature of 115° C. One hour at this temperature was found to be sufficient to drive off the water. Concordant results were not at first obtained. A sample which had been bottled immediately after evaporation of the spirit gave nearly five molecules of water of crystallisation. Others, which had lain exposed for periods up to two days, gave results varying down to three molecules. It would seem that ethylmorphine sulphate behaves in this respect like codeine sulphate, which crystallises at first with five molecules of water and readily loses two of these on exposure. The treatment at 115° C. did not seem to have any decomposing effect on the salt. If the heating was continued for two hours slight discoloration took place, but no loss of weight was recorded. As might be inferred from its constitution, ethylmorphine is a fairly stable substance, the hydrogen of the phenolic hydroxyl group in morphine having been replaced by ethyl. The sulphate, with which we are now dealing, is likely to be still more stable. To eliminate the possibility of decomposition a sample, taken from some material which had been bottled immediately after drying, was placed in a vacuum desiccator over sulphuric acid. After eighty hours its weight had become constant. The result indicated that five molecules of water had been lost. The formula of crystallised ethylmorphine sulphate is, therefore,

$$(C_{17}H_{18}O_2N.O.C_2H_5)_2H_2SO_4 5H_2O.$$

The solubility in water, and that in alcohol, were also determined. The solubility in water is one part of ethylmorphine sulphate in 9.5 parts of water at 15.5° C. In alcohol it is one part in 111 parts of 90 per cent. spirit, also at 15.5° C. These values are near approximations, but are not claimed to be highly accurate, though they are quite sufficiently so for ordinary purposes. The method by which they were obtained was described, after which the author referred to the British Pharmacopœia definition of solubility :

> The solubility of a substance is expressed by stating the number of millilitres of the solvent in which 1 gramme of a solid, or 1 millilitre of a liquid, will remain in solution at a temperature of 15.5° C.

No method is given. If one part of a substance dissolves in, say, ten parts of water, it will also remain in solution if the solution is much weaker than this. The ambiguity would be removed by inserting the word "minimum" before "number" in the sentence, or by inserting "just" before "remain." It should be noted that the solubilities given for ethylmorphine sulphate are grammes in c.c. This is the usual way, and in any case the difference between the millilitre and the c.c. is too small to be taken into account for present purposes. The work was done in the laboratories of T. & H. Smith, Ltd., to whom the author acknowledged his indebtedness for permission to publish.

DISCUSSION.

Mr. STOUT said this was a kind of paper in regard to which, unless one had actually done similar work, it was impossible to dispute the statements submitted.

Mr. RAMSEY asked what was the practical use for ethylmorphine sulphate.

Mr. HILL said these ethyl, methyl, and acetyl derivatives of morphine were first prepared and investigated, both chemically and therapeutically, in Edinburgh by Mr. Dott and Professor Stockman. Some years later they appeared on the market under proprietary names, such as heroin and dionin, as new German products. He thought they had probably got over the British habit of allowing German chemists to appropriate and exploit the results of British research.

The CHAIRMAN said they were greatly indebted to T. & H. Smith, Ltd., for allowing this piece of work to be communicated to a meeting of the Society.

Mr. THOMSON, in replying, said ethylmorphine sulphate itself was not used medicinally, but it was the form in which the ethylmorphine was first isolated for the purpose of being transformed into the hydrochloride.

The next paper was

OBSERVATIONS ON ACIDUM ACETYLSALICYLICUM.

By John H. Ramsay, Ph.C.

The British Pharmacopœia prescribes a certain standard of chemical purity, which has been adopted by the U.S.P. Free salicylic acid should not be present. A range of 2° C. is given for melting-point, and limits for lead (10 per million) and arsenic (2 per million) are fixed. Presumably if the sample does not meet the standard in any one particular it should not be used. Samples of acidum acetylsalicylicum examined from time to time show free salicylic acid to be present in most of them. From an examination of eleven samples only 27 per cent. were quite up to the B.P. standard. In the case of compressed tablets of acidum acetylsalicylicum the condition of affairs is much worse. All gave an acetic odour varying from very slight to distinct, and two only gave no reaction with test solution of ferric chloride. The remainder gave positive results, and showed a larger proportion of free salicylic acid than the powder.

DISCUSSION.

Mr. BURROWS said he would like to ask if Mr. Ramsay had tested the acetylsalicylic acid for traces of chloride. Sometimes manufacturers employed acetylchloride instead of acetic anhydride in the production of the acetylsalicylic acid.

Mr. NIGHTINGALE said he noticed that in some of the samples there appeared to be free salicylic acid without any acetic odour, and he thought in most cases there did not seem to be a relationship between the amount of free salicylic acid and the amount of free acetic acid.

Mr. COWIE said he thought decomposition might be due to the way in which the acid or the tablets were kept. It might be the result of hydrolysis, particularly in the case of the tablets, and he thought such preparations should always be sent out in glass containers.

Mr. STOUT said he had not found it difficult to procure pure acetylsalicylic acid. In course of examining all the samples which had recently passed through his hands he had not found it necessary to report any as containing free salicylic acid. The melting-point is an important test. The B.P. gave a range of from 133° C. to 135° C. Squire gave 135° C., and he thought Squire's figure was correct, and that it ought not to be lower than 135° C.

Mr. HILL said a proprietary brand was claimed to be permanent. It was sent out in a crystalline form differing somewhat from other makes, the difference in crystallisation being probably due to the solvent employed of which the finished article retained a more or less characteristic odour.

The Chairman said he had noticed the distinctly different shape of crystals and the characteristic odour referred to by Mr. Hill. There was a similar experience in the case of hexamine and urotropine.

Mr. Ramsay, in replying, said he had confined his attention to the decomposition of the substance resulting in free salicylic acid and free acetic acid.

The next communication was

An Impurity in Liquor Hydrogenii Peroxidi.

By John H. Ramsay, Ph.C.

A quantity of this was received, showing a decidedly milky appearance, and on standing a thin white deposit covered the bottom of the vessel. The B.P. directs that the solution should give no reaction for barium. As a matter of fact, this solution gave no reaction for barium, but gave positive results when the tests for calcium were applied. The source of this contamination was not ascertained. Treated in the nitrometer, oxygen was evolved equivalent to only 8.3 volumes from 1 of solution. It was therefore evidently not a satisfactory sample.

Discussion.

Mr. Cowie said, in his experience, the gasometric method of estimating peroxide of hydrogen was unsatisfactory, and not anything like so accurate as the volumetric method.

Mr. Stout was inclined to think that calcium must be a merely accidental contamination.

The next communication was on

Scottish Chamomiles.

By H. W. Clair.

In Scotland twenty or thirty years ago it was a common thing to find two kinds of chamomile flowers in stock, and both could usually be obtained from wholesale houses. The one known as single or Scotch chamomiles, and consisting of the single flowers of *Anthemis nobilis*, were reputed to be stronger and more active than the second kind. They contained more volatile oil, which occurs chiefly in the central yellow, tubular florets, and they were more esteemed for preparing the chamomile tea, much in vogue as a domestic tonic and carminative. The other, known as double or English chamomiles, and consisting of the double flower-heads of *Anthemis nobilis*, was also grown in some parts of Scotland, but for many years has been displaced chiefly by Belgian and French chamomiles. The double flower-heads are less bitter and aromatic, contain less volatile oil, and are used more as a hot fomentation than as an internal tonic medicine.

Anthemis nobilis is not indigenous to Scotland, and can hardly be said to occur wild, as recently suggested by Mr. Holmes. In the neighbourhood of Edinburgh it has been found occasionally as a garden escape near houses, or on refuse heaps in such areas as the Water of Leith Valley, between Juniper Green and Balerno. It was formerly cultivated in many cottage gardens in Scotland, particularly in the Buchan district of Aberdeenshire, and also in Forfarshire. The cottagers collected the flower-heads for use as a domestic remedy, and any surplus was usually sold to the chemists. Some years ago the single-flowered *Anthemis nobilis* was cultivated to a considerable extent in the Deeside district of South Aberdeenshire, and from this quarter twenty or thirty years ago regular supplies reached the Aberdeen chemists. But the low prices obtainable, owing to the cheapness of the French and Belgian supplies, made such home cultivation unremunerative. Another cause finally stopped the cultivation. The cultivation of Scotch strawberries has become an extensive industry on Deeside, and the land formerly used for cultivation of *Anthemis nobilis* has been turned to the more profitable cultivation of strawberries. A well-known Aberdeen pharmacist had informed the author that for a good many years no Scotch chamomiles have been sold in Aberdeen, either wholesale or retail. In this connection the author told the following incident: About twenty years ago, when the Empress Frederick of Germany was dying, she expressed a desire to have some of the chamomile tea, which she had once taken as a girl, when resident at Balmoral Castle. The Emperor sent to this country for Scotch chamomiles, and, through Professor Balfour, of the Royal Botanic Gardens, Edinburgh, Mr. Rutherford Hill was asked for assistance in procuring a supply. He applied to one of the oldest members of the Society in Scotland, Mr. Duncan Napier, Bristo Street, Edinburgh, who is probably the only surviving representative of the old Scottish herbalists who made wide excursions, carrying the familiar black bag, and returning laden with all kinds of medicinal herbs for sale as such, or for the preparation of the many remedies for which the firm is famous. Mr. Napier was able to supply a quantity, the last of his stock, of single-flowered *Anthemis nobilis*, grown in his own herb garden at the Sciennes, from a plant obtained from a gardener near Dalkeith, who grew it for his own use. The material thus obtained was duly forwarded to Germany.

Mr. Blair then referred to the use of matricaria, and dealt with the chemical constitution of chamomile oil.

Discussion.

Dr. Smith said he did not think it could be said that the double-flowering chamomile was evolved from the single-flowering variety by cultivation. It was rather by a deviation in isolated instances from the normal type and by a careful process of selection of these deviating forms. In that way they were able to get a strain which retained the habit of producing double flowers. A good local illustration of this deviation from the ordinary form was furnished by the common Mayweed or *Matricaria inodora*. The normal plant had a central disc of tubular florets with a ray of white ligulate florets. There had appeared a variety which consisted exclusively of the tubular disc florets, without any ray at all, and this variety could be found in considerable abundance in many parts around Edinburgh.

Mr. Cowie said *Anthemis nobilis* was still grown in cottage gardens to a considerable extent in North-West Aberdeenshire, and he was in the habit of receiving each autumn about a 7-lb. packet of the flowers, of which he would be quite pleased to give a sample to anyone who would care to have them.

The next communication was on

Unguentum Acidi Carbolici B.B.

By J. Rutherford Hill, Ph.C.

This note dealt with a sample of the official carbolic-acid ointment sent to the author by Mr. Spence, Leslie. It had apparently been affected by the recent spell of abnormally intense cold, with the result that the carbolic acid had crystallised out. It was quite perfect when taken into stock about three weeks previously, but had been kept in a cold outside cupboard. The ointment, he said, should be protected from extreme cold.

A cordial vote of thanks was accorded to the authors of papers.

Business Changes.

Mr. P. G. Edmondson, chemist and druggist, has acquired the branch business of Walker & Harris, Ltd., chemists, at Harbour Street, Whitstable.

Holt, Thompson & Co., Ltd., fine-chemical manufacturers, College Lane, Liverpool, have acquired the fine-chemical business of the Bradford Wool Extracting Co., Ltd., Pit Lane Mills, Bradford.

Rothamsted Experimental Station has been presented with a coin, struck in Metapontum about 330 B.C., which bears on its reverse side the representation of an ear of barley—so accurately moulded that the variety can be identified.

Paraguayan Matte.—It is reported that an American enterprise has obtained concession of a large area in Paraguay for cultivation of Herva Matté, which may become a serious competitor to the Brazilian product at present forming the chief supply for the Argentine markets.

The Pharmaceutical Society of Great Britain.

Its Objects and Scope.

An address given by Mr. J. Rutherford Hill, Resident Secretary in Scotland of the Pharmaceutical Society, at a meeting of the Edinburgh Chemists', Assistants', and Apprentices' Association on December 10.

THE Pharmaceutical Society originated seventy-eight years ago by the coming together in London of certain chemists and druggists, who resolved to resist an attack on the rights of chemists to dispense prescriptions and supply medicines, in attempted legislation at the instance of an Association of Apothecaries, of which it was said, "The obvious tendency of the Bill is to depress and ruin, and eventually to extirpate, the compounding chemists and druggists." There was also a constant tendency to put the practice of pharmacy under the control of the medical practitioners. The voluntary association of chemists and druggists determined to resist any such subordination. It was held that pharmacy was a distinct and separate department of the healing art, and, through the efforts of the founders of the Society, its distinctive position and rights and privileges were for the first time put on a clear and independent basis. This was accomplished chiefly through the disinterested efforts of a few leading London pharmacists, of whom Jacob Bell was the most distinguished; but even from the very outset prominent pharmacists in Edinburgh and some other parts of Scotland were included in the membership of the Society, the most conspicuous of these being Mr. John MacKay.

AN EARLIER MOVEMENT.

It is of interest to note a similar movement in Edinburgh so far back as 1785, when the Society of Druggist Apothecaries was incorporated. The articles of association are signed, among others, by Mr. John Moncrieff, the founder of J. F. Macfarlan & Co., and James Gardner, of Gardner & Ainslie. The former was the son of the Rev. Sir H. Wellwood Moncrieff, of St. Cuthbert's Church, and the latter was the son of the Session Clerk of St. Cuthbert's. That Society was established on a basis of education, examination, and registration, but for some reason seems not to have been maintained in full activity. The Royal College of Surgeons of Edinburgh has a Charter right to grant a certificate to practise pharmacy, and it was in this connection that a qualification was provided for the membership of the Society of Druggist Apothecaries of 134 years ago. When Jacob Bell came to Edinburgh in 1852 he found a committee in existence in Edinburgh, and James Gardner was able to explain that it represented what remained of the old Society of 1785. The articles of association of this Society were presented to the North British Branch by Mr. James MacKenzie in 1895. It was on the basis of this still existing committee that, when a Board of Examiners for Scotland co-ordinate with the Board of Examiners for England and Wales was established by statute in 1852, the local elected body—now known as the Executive of the North British Branch—was established. While the Board of Examiners was fixed by statute, the Executive of the North British Branch and the maintenance of a Scottish headquarters of the Society under the general control of the Council as the supreme governing body was based on an honourable agreement between Jacob Bell, acting for the Council, and the representatives of Scottish pharmacists, chiefly under the guidance of Mr. John MacKay.

THE VOLUNTARY BASIS.

The Pharmaceutical Society founded in 1841 was a purely voluntary association, ready to do anything and everything likely to secure the recognition of the pharmacist as a distinct and independent craftsman. From the very outset, however, at least three aspects of its work became sufficiently prominent to be distinctly specified—namely (1) education, examination, and registration as a guarantee of professional efficiency; (2) the safeguarding in all necessary ways of the legitimate rights and interests of those carrying on the business of chemists and druggists; and (3) the providing of a fund to relieve distressed members of the Society. There is no evidence that these main purposes were intended to be inclusive of all the activities of the Society, nor have they ever been so. The Society has never for a moment hesitated at any time to deal with any matter relating to the profession of a dispensing chemist or germane to the business of a chemist and druggist. The circumstances of the early days, however, made it necessary to lay the emphasis chiefly on education, examination, and registration. These are the centre and core, the very *raison d'être* of pharmacy as a distinct and separate craft. On that solid foundation the stability and success of the superstructure must depend, and if the professional element is ever neglected or eliminated pharmacy as a distinct craft would cease to exist, and the main purpose for which the Society was founded would disappear. But the moment men in any craft begin to associate for any purpose other common interests emerge which immediately claim the attention of, and are dealt with by, the persons who have become associated. The experience of the Pharmaceutical Society has resembled all other associations of members of a common craft in this respect.

OBTAINING THE CHARTER.

The first President of the Society was William Allen, a distinguished London Quaker, who was deeply interested in philanthropic work and was consulted in this connection by Queen Victoria, who held him in high esteem. Through his association with the Queen he was able to secure a Royal Charter of Incorporation for the Pharmaceutical Society in 1843. This gave the Society an enhanced status and high privilege, which entitled it to be regarded as the officially recognised exponent and representative of pharmacy in Great Britain. Naturally, the three main objects of the Society were specifically embodied in the Royal Charter, and the means by which these objects and the general business of the Society are to be carried out are specified in detail. Thus arise the Charter rights and powers and duties of the Society, for the due execution of which it was originally answerable to the Crown. In a business so mixed as that of a chemist and druggist there are many questions arising which are common to other classes of business in which similar articles are sold. This danger of diffuseness in operations was present to the mind of Jacob Bell when he said:

> Those who are sincere in the desire for the advancement of our own legitimate profession, which is pure pharmacy, will perceive the importance of confining our attention as much as possible to that pursuit.

It seems quite clear that Jacob Bell's ideal of the Pharmaceutical Society was not a commercial association, but rather an educational and professional and scientific society, and it has always retained these features in an eminent degree.

THE POISON LAWS.

A few years prior to 1851 the occurrence of numerous arsenic poisoning cases caused public alarm and claimed the attention of Parliament. Chemists and druggists urged limitation of the sale to trained persons, but there was no statutory definition of a chemist and druggist and no official register. Limitation to competent vendors was therefore impracticable, and hence the futile Arsenic Act of 1851. But an issue had been raised which led to legislation at a later date. Meantime the Pharmaceutical Society promoted and secured Parliamentary sanction for the Pharmacy Act of 1852. It has nothing whatever to do with poisons, and seeks to accomplish its purpose by limitation of professional titles to qualified, examined, and registered persons. Its purpose is stated to be "To prevent ignorant and incompetent persons pretending to be pharmacists." The statute is based on the Society's Royal Charter, which it extends and modifies and incorporates in the Act itself. The Charter thereby acquires the force of statute law. By-laws made under the Charter and Pharmacy Act, which must be approved by a Principal Secretary of State (altered in 1868 to the Privy Council), after due promulgation, have also the force of statute law.

That being so, any question as to interpretation or powers or functions can only be determined by the public judicatories established by Parliament. Some years prior to 1868 much public alarm was caused by a series of lamentable criminal and accidental poisoning fatalities. As usual, Parliament proposed to check the evil by imposing purely mechanical restrictions. The Society strongly insisted that the only safe foundation for poison legislation was the education of the vendor. This principle was ultimately embodied in the Pharmacy Act, 1868. The purpose of that Act is indicated in the words, "It is expedient for the safety of the public that persons known as chemists and druggists should possess a competent practical knowledge of their business." Logically it should have limited, as in Ireland since 1875, the dispensing of medicines to duly qualified pharmacists, but unfortunately chemists and druggists were divided among themselves, and thus the Society's endeavour was frustrated. The Act of 1868, like all the other Pharmacy Acts, starts with the Royal Charter as its basis, and all these extensions and modifications by statute make a reference to the public judicatories the only competent process for its interpretation in a truly authoritative and decisive manner.

Retrograde Legislation.

The Poisons and Pharmacy Act, 1908, must be classed as a retrograde measure in so far as it infringes the fundamental principle of the Act of 1868 by permitting unqualified vendors holding a local authority licence to sell certain scheduled poisons on observing certain merely mechanical restrictions. The futility of such a policy was proved in the case of the Arsenic Act, 1851, and it may be said these provisions of the Poisons and Pharmacy Act, 1908, are as much a dead-letter as those of the Arsenic Act, 1851. This departure was strenuously opposed by the Society, but very powerful influences in Parliament proved too strong, and the long-continued public security from poisoning resulting from the Act of 1868 had begotten a general public indifference. Apart from this sinister Parliamentary relapse, it may be said that what is intended to be protected is the business of a chemist and druggist in so far as it is safeguarded by the provisions of the Charter and Pharmacy Acts, and that from the point of view primarily of the safety and protection of the public. That is to say, the Charter and the Acts pursuant thereto are designed to protect and regulate those professional restrictions and conditions which are intended to prevent any "ignorant and incompetent person" posing as a chemist and druggist.

The Business of a Chemist.

No doubt the Charter and Pharmacy Acts also had in view the statutory acknowledgment and protection of the pharmaceutical practitioner against the attempts of the apothecaries and medical practitioners to prevent chemists and druggists practising as dispensers of physicians' prescriptions and vendors of medicines and simple remedies, and the right of the community to obtain medical supplies without any physician's prescription. This latter point came up very sharply in connection with the Military Service Acts and the exemption of men indispensable for maintaining an adequate pharmaceutical service. An attempt was made to insist that the only national service for which a pharmacist could be exempted was the dispensing of written prescriptions. This contention was strenuously opposed by the Society and defeated. Since 1868 the pharmacist in the statutory sense is a person, not limited to the vending of medicines or medical or surgical appliances, but he holds the only statutory British qualification for the dispensing of all medicines and the retail vending of all poisons. The business of a chemist and druggist, in the sense of the Charter and Pharmacy Acts, is therefore very comprehensive. It therefore follows that the Charter powers, functions, and duties of the Pharmaceutical Society, as now defined by Parliament, to whom the Society is responsible through the Privy Council, are very wide and may be summarised as follows :

1. Education and technical and scientific training. The advancement of chemical and pharmaceutical knowledge by means of schools, lectures, meetings, museums, libraries, books, laboratories, scientific research, endowments, prizes, and scholarships.

2. Professional qualification and registration and the protection of professional titles. This includes reciprocity within the Empire or with foreign States.

3. Professional rights, privileges, and obligations in the dispensing of medicines and in the supply or vending of poisons under the Pharmacy Acts, National Health Insurance Acts, Defence of the Realm Act, Venereal Disease Act, Arsenic Act, Poisoned Flesh Prohibition Act, Poisoned Grain Prohibition Acts, Drugging of Animals Act, Sale of Intoxicants Regulations, or any other legislative enactment affecting the supply of medicinal substances, or the supply of poisons for domestic, industrial, or technical purposes, or as antiseptics or fungicides, or the vending of potent dangerous chemical substances, or the making, extending, modifying, or cancelling of enactments or Orders in Council bearing on these matters.

4. All conditions, legislative or otherwise, affecting the professional practice of pharmacy in retail pharmacies, in hospitals or dispensaries, or in the Army or Navy or Mercantile Marine. This would include the recognition, representation, and status of pharmacists under the National Health Insurance Acts, and also all questions affecting mobilisation of pharmacists for naval or military duty, and the maintenance of an adequate pharmaceutical service for insured as well as uninsured persons.

5. All questions relating to the supply of medicines or medical or surgical appliances or antiseptics or disinfectants coming within the scope of a Ministry of Public Health. This may be of very vital importance owing to the evident tendency towards the nationalisation of medical and pharmaceutical services.

6. Questions relating to the use of alcohol or other substances for medical purposes and all questions as to Customs and Excise Regulations affecting the practice of pharmacy.

7. Questions relating to the Medicine Stamp Acts, the Explosive Substances Act, or other enactments affecting the supplying, transport, or storage of medicines, or medical or surgical appliances or poisons.

8. Questions relating to the compilation and publication of the British Pharmacopœia, the Sale of Food and Drugs Acts, and all matters relating to the fixing of standards and formulæ for drugs and medicinal preparations. The Society has also to be consulted by Government Departments in framing any regulations affecting the practice of pharmacy or the vending of poisons.

9. The professional rights and privileges of pharmacists in supplying to the public, according to recognised and universal custom, the medicinal substances and appliances in which they deal, and the rights of the public to obtain such medicinal substances and appliances. The Profiteering Act and the Shops Acts may conveniently be included in this section.

10. All other questions relating to the foregoing matters which belong distinctively to the practice of pharmacy or the vending of poisons and the securing of the safety of the public in connection therewith. This would include disciplinary powers over all registered pharmacists.

11. Recognition of the Society as the sole statutory representative of British pharmacy and those engaged in the practice thereof, and qualified to advise the Government and any public authority on all matters relating to the supply and distribution of medicines and medical and surgical appliances and poisons and the dispensing of physicians' prescriptions, and having authority to administer the Pharmaceutical Poisons Acts.

12. All matters relating to the Benevolent Fund or any other matters distinctly specified in the Charter or Pharmacy Acts or necessary for carrying out any objects so specified.

It will be realised that this summary of matters which clearly come within the objects of the Society as expressed in the Charter and Pharmacy Acts means a very great amount of multifarious duties and responsibilities, constantly requiring the thought and time and labour of the Society's Council and staff. The Charter and Pharmacy Acts make it imperatively necessary that all these matters shall be faithfully attended to. But there are innumerable matters beyond all these which are continuously receiving attention and which occupy a large amount of the time of the Council and the staff. No member of the Society applying for information or help or guidance is ever met with the objection that what he wants is not within the Charter or Pharmacy Acts.

The rest of the paper dealt with the functions of outside bodies, such as the Proprietary Articles Trade Association and the Chemists' Defence Association, and dealt specifically with the local organisation of the Pharmaceutical Society in Scotland.

Serums and Vaccines in Spain.

A ROYAL DECREE has been promulgated in Spain, regulating the manufacture and sale of vaccines and serums in that country. The manufacture of virus, vaccines, toxins, serums, and similar products for the prevention, diagnosis, and treatment of sicknesses requires the permission of the Inspector-General of the Board of Health. The director of the laboratory in which such products are prepared must make an application in writing for each preparation. This application must contain particulars as to the scientific bases of each product issued, a plan of the laboratory in which they are prepared, the form in which each product will be marketed, the preservative added, dose, the activity of each preparation, and the maximum period during which it retains its activity. In the case of a new product, the request for permission to prepare and market it must be accompanied by a statement setting forth the originator's grounds for assuming that its properties justify its use for the prevention, treatment, or diagnosis of a given disease. The registration-fee is 25 pesetas for each product, and must accompany the application.

Permission to prepare these bacteriological agents will only be granted provided that (1) the technical direction be entrusted to a doctor, pharmacist, or veterinary surgeon of recognised ability; (2) the *personnel* employed be adequate in number and healthy, and that in the event of an employé, or a member of his family, suffering from a contagious disease, he shall not be allowed in the laboratory during the course of such disease; (3) the animals employed be healthy, in accordance with the uses to which they are to be put, and shall be under the supervision of a veterinary surgeon; (4) the laboratory be suitably equipped with all the requisite apparatus, and shall possess proper space for storing the finished products.

The licence once granted will remain valid so long as no change takes place in the conditions under which it was granted, and provided the inspector specially appointed to supervise the establishments in which bacteriological products are prepared does not find any deviations from the conditions under which the licence was granted. In the case of any changes, the proprietor of the laboratory must put in a fresh application for permission; this also applies in the case of a new product.

The Government will exercise a rigid control of all bacteriological products, and for this purpose a special technical laboratory, with the necessary *personnel*, will be established, attached to the office of the Inspector-General of the Board of Health. The latter will, in consultation with the national scientific corporations and laboratories, draw up as soon as possible a schedule of the properties required of each product, the maximum period of its activity, and the amount necessary to carry out the requisite tests. Special delegates appointed by the inspector-general will, on his instructions, obtain from time to time packages of bacteriological products, from the laboratories producing them and from pharmacies, and these will be submitted for examination to the special laboratory. Should the latter find that certain conditions in the preparation of the product have not been complied with, but without prejudice to the public health, the laboratory in question will be informed of the fact, and warned not to allow its products to be supplied without complying fully with the standard requirements. If, on the other hand, the product is found to be so defective as to constitute a danger to the public health, either by reason of its inactivity or because it contains a noxious principle, the licence in question will be revoked, and an order will be issued to seize all the products on the market belonging to the batch found defective, and also those issued before or after this batch by the same laboratory, which will be held responsible.

The sale of all products coming within the scope of the new decree may be effected only by the laboratories in which they are prepared, and in pharmacies. The outside wrapper of every package must indicate the name of the laboratory, and of its director, where it is prepared, the name of the product, the amount contained in the vial, the serial number of its manufacture, and the maximum period of activity. In the case of products emanating from laboratories which on account of having issued defective preparations are required to submit them for examination to the special laboratory prior to issue, the number of the batch and number of the analysis of the special laboratory must also be stated.

The laboratories at present producing vaccines and serums will be allowed a period of six months in which they can comply with the new regulations, and in the case of existing laboratories the fee for a licence will be reduced to 5 pesetas for each product; official laboratories are not required to pay any registration-fee on behalf of their products. With regard to vaccines and serums of foreign origin, article 9 of the decree reads: "Virus, vaccines, toxins, serums, and similar products manufactured abroad must comply with the following requirements to be allowed into Spain:

(*a*) They must be authorised by the Government of the country of origin.

(*b*) Submit to all the regulations as to control and sale which are applicable to Spanish preparations.

(*c*) The laboratory in which they are manufactured, or the importers, must obtain a special licence from the Inspector-General of the Board of Health. This licence will be granted after the application has been referred to the special laboratory for its opinion.

Pharmacy in Denmark.

CHEMISTS' charges are being so keenly discussed, both with reference to the Profiteering Act and also to the Insurance tariff, that the impressions of Mr. M. W. Chambers, chemist and druggist, Nottingham, on the conditions of pharmacy in Denmark, where he has lately been on a visit, are of more than ordinary interest. Mr. Chambers is the husband of a Danish lady whose brother is a doctor in Denmark, and his information has been acquired at first hand. In the course of a conversation with a contributor to THE CHEMIST AND DRUGGIST Mr. Chambers said:

The average chemist in Denmark makes a much better living than does the average doctor. He has a monopoly in the making-up of prescriptions and in supplying drugs. The doctor is not allowed to dispense medicines, although in urgent cases the medical man may supply a small quantity, which, however, must first have been sold to him in a sealed bottle by the chemist, with the price marked on the bottle or package. The doctor is not allowed to make a profit on the medicine thus supplied. The chemist in Denmark makes practically the whole of his income by making-up medicines. He has no window-show of any description, and many of the sundries and surgical appliances which are sold in this country by chemists are there sold by other traders. The Danish chemist is in the most complete sense of the word a specialist. The way in which pharmacies are fitted up is a revelation; our best shops would scarcely bear comparison with even a country pharmacy in Denmark, where the chemist has the whole of his space available for dispensing. The chemists' rates are highly remunerative. Here is a simple prescription that I had made up, and for which I was charged 4*s*.:

Tinct. iodi.	ʒij.
Sp. vini rect.	ʒiv.
Mix. Use as directed.	
Unguent. diachyli	ʒij.
Use night and morning.	

In Denmark the doctors are willing for the chemists to have all this work instead of begrudging it, as they do here. There is a national health insurance system, subsidised by the State, but it is on a voluntary basis. Most of the chemists do a good deal of analytical work. Water is frequently analysed. The chemist has also to understand the chemistry of foods, with regard to which he is consulted by the doctor. One chemist with whom I talked considered that dispensing in England was in a most degraded state.

Trade Report.

42 Cannon Street, E.C. 4, Dec. 23.

In consequence of the Christmas holidays this report closed for press on Tuesday morning. Markets and 'Change in the interval have been thinly attended, and business is of a retail description, so far as home consumption is concerned, and will be so for the remainder of the year. Prices, however, remain firm, but there are likely to be few alterations until after the turn of the year. Japanese products such as menthol, mint oil, and refined camphor close rather easier. Cape aloes is scarce, and the parcels now landing are likely to meet a brisk demand at advanced rates. As a result of the Import Restrictions having been declared illegal, the Customs appear to have released a fair quantity of recently imported chemicals for which licences were applied for, but had not yet been granted. This concession is, however, not likely to ease prices, as few imports of pharmaceutical chemicals have taken place of late, and there is an all-round scarcity of many essentials. At the moment importers appear to have won a pyrrhic victory, as the President of the Board of Trade has intimated that, pending the result of the appeal against Mr. Justice Sankey's judgment, or the passing of fresh legislation, the Government do not intend to permit a gap in time during which anybody might make contracts for forward delivery which might run for years. Shellac shows a further substantial advance both for spot and delivery. Petroleum is 2*d.* per gallon higher. Mysore Government sandalwood oil is 5*s.* per lb. higher, owing to the rise in the Indian exchange.

Higher	Firmer	Easier	Lower
Camphor oil	Arsenic	Camphor (Jp. refd.)	Linseed
Orris (Ital.)	Cassia lignea	Juniper-berries	Menthol
Petroleum	Copper sulphate	Mint oil (Jp.)	
Podophyllin	Lead oxide	Nutmegs	
Sandalwood oil (Mysore)	Wax veget. (Jp.)		
Shellac			
Turpentine			

Aloes.—There has been a good inquiry for Cape recently, and the value of good hard bright firsts is 75*s.* per cwt., but there is nothing available at present. Various parcels are in course of landing, and as soon as they are warehoused they will meet with a ready demand. Good Socotrine in kegs is also scarce.

Anise Oil, Star.—Sales of "Red Ship" brand have been made at 6*s.* per lb., and the market closed at 5*s.* 10½*d.* sellers.

Anise, Star.—Chinese on the spot is scarce, the value being 135*s.* per cwt.

Arsenic.—The tone is again somewhat firmer, with best Cornish powder quoted at about 66*l.* delivered London. Japanese is obtainable near 60*l.*, and the demand is hesitating at the relatively high prices.

Balsam Peru.—The spot price is firm at 23*s.* per lb.

Bergamot Oil.—New crop pressing has arrived on the market, and the position at primary sources has been slightly easier, according to Sicilian advices.

Bromides.—The *Jessica* direct from Hamburg has brought 14 cases and one cask ammonium, four casks and 23 cases potash, and three cases and seven casks of sodium; 26 packages of potash have also arrived *via* Antwerp. Prices remain firm and unchanged at 4*s.* 6*d.* for potash crystals, 4*s.* 3*d.* for ammonia, and 3*s.* 6*d.* for soda.

Camphor (Refined) is dull and easier, with sellers of Japanese 2½-lb. slabs at 20*s.* 6*d.* per lb. on the spot, and November-January shipment at 19*s.* 6*d.* c.i.f.

Cardamoms.—The exports from Ceylon during the period January 1 to November 17, 1919, amounted to 449,321 lb., against 356,112 lb. in 1918, 232,425 lb. in 1917, and 372,141 lb. in 1916. This year the shipments to the U.K. amounted to 322,856 lb., against 2,087 lb.; to U.S.A. 61,027 lb., against 122,660 lb.; to India, 10,681 lb., against 180,255 lb.; and to Norway 33,478 lb., against 23,018 lb. in 1918.

Cascara Sagrada.—The *Verbania*, from New York, has brought 1,642 packages to London.

Cassia Lignea has been in fair demand, whole selected reported sold at from 95*s.* to 100*s.*, and broken up to 76*s.* to 77*s.* 6*d.* per cwt.

Chillies.—Sales of Sierra Leone are reported at 70*s.* per cwt. ex store Liverpool.

Cod-liver Oil.—Our Bergen correspondent writes on December 15 that the market continues dull, sales being quite insignificant. The total exports of medicinal oil from Norway from January 1 to November 30, 1919, amounted to 33,000 barrels.

Copper Sulphate.—The demand for export is moderately active, although there is so far not much business reported. Terms for casks f.o.b. Liverpool are now fully 42*l.* per ton, less 5 per cent. There is, however, plenty of stock to be disposed of, and the home-trade demand is practically at a standstill.

Ginger.—Japanese is firm at last week's advance to 60*s.* per cwt. for fair on the spot.

Juniper-berries are a trifle easier, offering at 31*s.* per cwt. on the spot.

Lead Oxides.—The tendency is again strongly upward, owing to another furious advance in the price of pig lead, which jumped as much as 2*l.* 10*s.* a ton on Monday. Further revisions in prices for oxides must be expected, and the feeling in regard to practically all descriptions of decorating material is also strong.

Lemon Oil.—A Palermo advice dated December 13 states that the fluctuations of the foreign exchange are again completely upsetting the position of all Sicilian products. The rate on dollars has gone up again very heavily during the course of the week, and the rate on sterling has also followed the movement, although on a smaller scale. It seems rather strange to discuss the exchange instead of the position of the market, but the two are intimately connected, as whenever the higher rate of exchange gives better returns for prices in foreign currency buyers here are inclined to pay higher figures independently from the actual situation of the market, and growers are now so aware of this fact that they are discussing the exchange just as much as weather conditions and crops. Part of the difference made out by the higher rate of exchange has been put on to the prices which were paid for spot oil and for forward delivery of new crop. The position of the market in Italian currency is consequently much stronger. Pressings continue to be exceedingly small for the season, and forecasts of a late beginning seem to be true. The demand continues quite brisk, and this contributes to make the feeling strong.

Menthol is quiet and easier, with sellers of Kobayashi Suzuki at 75*s.* per lb on the spot. During the interval small sales have been made at 77*s.* 6*d.*

Mint Oil has declined about 3*d.* per lb, with spot sellers of Kobayashi-Suzuki at 17*s.* 6*d.*

Nutmegs have been quiet, and prices of Singapore and Penang are slightly easier.

Orange Oil.—Sicilian advices report the market as firm, and the available supply small. The demand has, however, fallen off, and buyers are not inclined to pay the higher prices asked.

Orris.—Italian is about 5*s.* per cwt. dearer, fair Florentine sorts offering on the spot at 110*s.* per cwt.

Pepper is firm, the sales including fair black Singapore at 11*d.* to 11¼*d.*, and February-April shipment at 11¼*d.* c.i.f. Lampong is 10¾*d.*, and November-December shipment is 9¾*d.* c.i.f. Tellicherry is 1*s.* 1¾*d.* and Alleppy 10¾*d.* spot. *White* pepper is steady, the spot value of Muntok being 1*s.* 5½*d.*, and December-February shipment has been sold at 1*s.* 4⅞*d.* c.i.f. Singapore on the spot is 1*s.* 5*d.*, and January-March shipment 1*s.* 4*d.* per lb. c.i.f.

Petroleum is dearer by 2*d.* at 1*s.* 9*d.* per gallon for ordinary refined American, and at 1*s.* 10*d.* for water-white.

PILOCARPINE.—Owing to temporary scarcity the present value of hydrochloride is nominally 32*s.* per oz. Nitrate is very scarce and nominal.

QUICKSILVER.—The market is exceedingly restricted. only very small lots being obtainable at between 24*l.* and 24*l.* 10*s.* per bottle. Prices are, of course, very high, but scarcity for the time being dominates the position.

QUININE.—The *Keemun* from Batavia has brought 1,150 cases, or 560,000 oz. quinine.

RHUBARB.—The *Peleus* has brought 59 cases, and the *Khiva* 43 cases, both from Shanghai.

SACCHARIN.—The Board of Trade Returns for November give the following figures :

	1917	1918	1919
	Oz.	Oz.	Oz.
Imports (Nov.)	87,516	146,406	45,451
Do. (Jan.-Nov.)	502,575	2,241,552	1,143,452
Enter for home consumption (Nov.)	83,739	138,524	19
Do. (Jan.-Nov.)... ...	462,097	1,873,562	288,389
Re-exports (Nov.)	—	—	126,180
Do. (Jan.-Nov.) ...	3,324	44	894,240

SANDALWOOD OIL.—Mysore Government oil (B.P.) has advanced about 5*s.* per lb., owing to the rise in the Indian rupee. For broken bulk—*i.e.*, less than one case—the price is 51*s.*, and for less than five cases 50*s.* 6*d.* per lb. is quoted, net cash, ex warehouse London.

SHELLAC on the spot has advanced a further 15*s.* per cwt., with sales of the usual TN standard Orange quality at from 700*s.* to 715*s.* AC Garnet is 575*s.* and GAL 560*s.* Fine orange and button descriptions are practically off the market. Futures have been quiet owing to the pending holidays, the sales including March at from 695*s.* to 715*s.* and May 700*s.* to 715*s.*, these prices being from 30*s.* to 40*s.* higher since our last. The shipment market remains nominal.

TURMERIC.—Fair Madras finger has been sold at 52*s.* 6*d.* per cwt. on the spot, and Cochin at from 45*s.* to 47*s.* 6*d.*

TURPENTINE is about 2*s.* 6*d.* per cwt. dearer, with a fair business, American on spot closing on Monday evening at 137*s.* 6*d.* and December 137*s.* 6*d.* per cwt.

VANILLA.—The Seychelles crop of 1918, which amounted to 11 tons, valued at Rs. 65,747, was considered good compared with the crops of the last five years. A good crop in the 1890's used to reach 35 to 45 tons. It may be said that vanilla planting in the Seychelles is not carried out on the same scale as formerly, and that plantations are being given up gradually.

WAX, VEGETABLE.—Japanese is rather firmer at 92*s.* to 92*s.* 6*d.* per cwt. on the spot.

Fertilisation of Vanilla.

The first vanilla plants were brought to the island of Réunion from Cayenne in 1819 by Admiral Philibert, who had entrusted the care of these plants on board his man-of-war to a member of the crew, Perrotet, who later became the manager of the plantation at Pondichéry ("Revue agricole de la Réunion"). The artificial fertilisation of vanilla in Réunion is due to a slave, Edmond Albins, who had noticed how his master, M. Beaumont Bellier, fertilised the flowers of a special kind of acacia, and as a pastime adopted this procedure with vanilla plants which refused to yield any fruits. This experiment took place in 1841. At present three commercially well-known kinds of vanilla are cultivated in Réunion.

Black Pepper.

The most important plantations of black pepper in the Dutch Indies are situated in the district of Komering-Oeloe, where there are some seven million pepper plants under cultivation, yielding about 70,000 piculs of black pepper, which is principally brought to Palembang. In the vicinity of Batoe-Radja there are about 300,000 pepper plants, yielding approximately 4,000 piculs. Thus the districts of Komering and Ogan are able to supply annually about 73,000 piculs of black pepper. In Palembang the price is about 35 to 50 florins per picul. However, Chinese as well as Dutch traders state that no pepper will be forthcoming from the interior owing to the prevalence of a disease among the pepper plants. Its occurrence was first observed towards the end of 1917. The leaves begin to droop, then assume a brownish colour, the stems shrivel as if boiling water had been applied to the plants. This disease has spread with alarming rapidity, and in spite of an investigation undertaken by the authorities it has been impossible to ascertain the cause; apparently it is due to the physiological conditions of the soil.

East African Markets.

One effect of insufficient tonnage has been the entrance of South Africa into the markets of equatorial Africa. Mr. T. Sleith, M.B.E., who has recently visited the territories in question as special Trade Commissioner to the Union Government, was instructed to investigate the position, not only as to exports from South Africa, but as to the supply of various raw materials required in the Union for primary industries. In a valuable report which has been presented to the Union Houses of Parliament, Mr. Sleith says he does not anticipate any large volume of trade for some time to come, but considers that as South African manufacturers are now in the East African markets, every effort should be made to retain that share of business which has fallen to them. Central Africa, as a source of certain raw materials and products, he continues, is of primary and paramount importance to the Union, and as its industries extend and develop this will become more apparent. "In these territories is an unlimited supply of copra, palm-oil, ground-nuts, sim-sim, sisal, beeswax, hides and skins, and other commodities equally important to industrial manufacture, and it is to Central Africa that the Union must look, owing to the geographical advantage, which will be much more pronounced when shipping and freights resume a more normal condition."

Board of Trade Returns.

Many important alterations in the Board of Trade returns will be adopted in the January issue. It is impossible to explain in detail all the changes, but as regards the import and export lists the number of headings has been increased from 355 to 1,650 for imports, and from 606 to 1,360 for exports, the largest additions having been made under the heads of "Machinery" and "Chemicals." In the second group the number has been increased from 54 for imports and 42 for exports to 157 for both. In addition to the more detailed classification of commodities adopted, the record of foreign trade by quantity as well as by value is proposed in a considerable number of cases in which quantities have not hitherto been secured. In other cases the units of quantity prescribed have been reconsidered with a view to securing improved information on matters the importance of which was thrown into relief during the war. If the Monthly Accounts of Trade were expanded in proportion to the increase in the number of import and export headings its size would be approximately doubled. In cases in which old headings have been replaced by two or more new headings comparisons with the past cannot be made in detail, and it has been decided not to attempt such comparisons in the Monthly Accounts for 1920. These accounts will show comparative figures for the main groups and in such further detail, corresponding to that shown in earlier years, as the information permits.

Javanese Castor Oil.

The increasing consumption of castor oil as a lubricant for motors running at high speed is reflected in the exports from Java, where the plant has been cultivated for some time It is even stated that Javanese seeds are much sought after in Europe, and are preferred to the seeds exported from British India the principal country of production, which exports annually about 3 million bushels (50 lb.) of seeds, and 2 million gallons of castor oil. In 1913 a total of 1,799,064 kg. of ricinus seeds were exported from Java, of which 899,193 kg. went to Italy and 221,058 kg. to Holland, 206,152 kg. to Australia, 152,798 kg. to France, and 145,875 kg. to Germany. In 1918 the exports of seeds had fallen to 560,005 kg., of which 366,382 kg. went to Japan and 193,624 kg. to Australia. The exports of castor oil show the following figures (amounts are quoted in litres):

Exports to—	1915	1916	1917	1918
Holland... ...	416,758	375,390	—	—
Great Britain ...	213,963	23,870	309,552	—
Denmark ...	—	3,558	—	—
Norway	—	4,028	5,365	—
Italy	7,000	—	—	—
United States ...	—	—	280,200	8,100
Australia ...	—	1,980	4,071	60,499
Hong-Kong ...	339	—	—	—
Japan	—	—	3,293	179,709
Singapore ...	—	—	—	623,803
Other countries	—	254	—	3,728
Total ...	638,060	409,010	602,481	875,439

Arrivals of Drugs, Chemicals, and Allied Produce.

The following products have arrived at the ports named :

London

(Dec. 8 to 15).

Carbon black (U.S.), 643 cs.
Casein (Fr.), 300 bgs.
Chemical products : not described, (Belg.) 18 cs., (N.Y.) 210 pkgs., (Holl.) 7 cs.
Acetanilide (N.Y.), 102 cs.
Acetic acid (U.S.), 171 cbys. 142 brls.
Ammonia (Norw.), 40 cks.
Arsenic (Jp.), 200 cs.
Aspirin, 13 cs.
Boric acid, 10 cs.
Bromides : potasb, (Denm.) 33 cs., (R'dam) 4 cs.
Calc. acid phosph. (N.Y.), 200 cs.
Calc. carbide (Can.), 1,100 drms.
Calc. cit. (S. Amer.), 7 bgs.
Calc. glyceropbos. (N.Y.), 54 cs.
Calomel, 10 cs.
Corrosive sublimate, 23 cs.
Coumarin (N.Y.), 21 cs.
Formaldehyde (New York), 327 brls.
Glycerophos. acid (N.Y.), 21 cs.
Glycerophosphates (N.Y.), 7 cs.
Hexamine (N.Y.), 22 kgs.
Hydroquinone (New York), 11 kgs.
Iodine, 8 cs.
Iodoform, 8 cs.
Lithium carb. (N.Y.), 6 brls.
Mag. sulph., 20 cs.
Milk sugar, (N.Z.) 215 cs., (Belg.) 20 cs.
Oxalates (Norw.), 38 brls.
Oxalic acid (Norw.), 20 cks.
Potash salts,(R'dam) 15 cks., (kainit) 483 tons
Quinine, 19 cs., (Amst.) 16 cs.
Soda nit. (Norw.), 29 cks.
Soda salicyl., 12 cs.
Tannic acid (Belg.), 6 pkgs.
Tartar, (Algiers) 71 bgs., (Fr.) 208 bgs.
Vanillin (N.Y.), 5 cs.
Zinc oxide (N.Y.), 400 brls.
Drugs, crude, etc. :
Belladonna root (Jp.), 20 bls.
Camphor (N.Y.), 125 cs.
Cantharides (Ch.), 20 cs.
Cardamoms (Cey.), 24 pkgs.
Cinchona (Amst.), 21 cs.
Henna (Alex.), 35 bls.
Ipecacuanba (Rio.), 35 bls.
Kola (W.I.), 12 pkgs.
Menthol, (Swe.) 12 cs., (Holl.) 4 cs.
Podophyllum (N.Y.), 75 pkgs.
Senega (N.Y.), 15 bls.
Senna (Alex.), 67 bls.
Turmeric (E.I.), 724 bgs.
Witch hazel (N.Y.), 6 brls., (leaves), 35 pkgs.
Drugs, medicines, etc. : (Jp.) 15 bgs. 10 bls., (N.Y.) 135 cs. 100 bxs., (Can.) 200 cs. ; bromoseltzer (U.S.), 645 cs. ; emulsion (U.S.), 1,680 bxs. ; glaxo (N.Z.), 300 tins; petroleum jelly (U.S.), 100 bris. ; vaseline (N.Y.), 2,419 cs.
Dyes, dyeing and tanning materials, etc. : aniline (Belg.), 181 pkgs. ; extract, tanning (Fr.), 320 cks. ; gambier (S'pore) 1,845 cs. ; myrabolans (E.I.), 100 tons, 1,120 bgs. ; sumac (Belg.), 12 pkgs. ; valonca (Smyr.), 80 pkgs. ; wattle bark (Natal), 4,001 bls.
Egg products : albumen (Ch.), 684 cs. ; whole (Ch.), 30 cs. 63 brls. ; yolk (Cb.), 1,384 cks. 328 brls. 714 cs.
Gelatin (Belg.), 79 pkgs.
Glucose, (N.Y.) 2,616 pkgs. 1,927 brls. 410 × ½ brls. 700 kgs., (Belg.) 75 brls.
Gums, resins, etc. : not described (Fr.), 1,328 pkgs. ; copal, (N.Y.) 88 cs., (S'pore) 125 cs. ; damar (S'pore), 100 cs. ; resin, (Fr.) 426 cks., (Swe.) 28 brls., (U.S.) 200 brls.
Honey, (Calif.) 259 cs., (Aust.) 955 cs., (Halif.) 91 cs.
Lead, white, (N.Y.) 50 brls. 1,209 kgs. 241 cks., (Belg.) 113 brls.
Litbopone (R'dam),634 cks. 1,000 pkgs.
Malt ext. (U.S.), 100 brls.
Molasses (Natal), 398 drms.
Oils, essential : not described, (Sp.) 19 cks., (N.Y.) 41 pkgs, (Natal) 22 drms. ; peppermint (Holl.), 55 cs. ; turpentine, (Fr.) 560 cks., (Port.) 499 cs.
Oils, fixed : not described (Holl.), 273 brls. ; castor, 110 cs. ; coconut, (Jp.) 2,800 cs., (N.Y.) (acid) 895 brls., (S'pore) 574 brls. ; cottonseed (Ch.), 88 drms. ; lin (Holl.), 290 cks. ; palm (W. Af.), 1,001 cks. 125 pchns., (R'dam) 120 brls. ; rape (Jp.), 1,260 cs. ; soya (Ch.), 536 cks. ; sperm (Natal), 64 drms. ; whale(N.Z.), 265 cks. ; wood (Ch.), 1,227 brls. 447 cks.
Perfumery (Fr.), 112 pkgs.
Seeds : almonds (Sp.), 559 sks. 530 bgs. 217 pkgs. ; apricot kern. (Ch.), 28 bgs. ; caraway (Holl.), 220 bgs. 8 cs. ; copra, (Cey.) 5,997 bgs., (Natal) 1,720 bgs., (S'pore) 23,143 bgs., (Aust.) 27,227 bgs. ; corossos (Fr.), 104 bgs. ; cotton, (S. Amer.) 331 bgs., (Aust.)4,181 sks. 1,100 bgs.,(Alex.) 2,933 tons ; cumin (Gibr.), 156 bgs. ; groundnuts (S. Amer.), 1,800 bgs. ; lin, (Ch.) 1,388 bgs., (Belg.) 2,425 bgs. ; mustard (Denm.), 115 bgs. ; palm kern. (W. Af.), 29,933 bgs. ; rape (Ch.), 1,129 bgs. ; soya (Jp.), 558 bgs.
Spices : cinnamon, (Cey.) 246 bls.,(N.Y.) 246 bls., (Natal) 28 pkgs. ; cloves (N.Z.), 29 sks. ; mace (W.I.), 14 cs. 132 brls. ; nutmegs, (N.Y.) 17 pkgs. 85 brls. 300 cs., (S'pore) 622 cs., (Halif.) 37 bgs. ; pepper, 148 bgs. (S'pore), 15,003 bgs. ; pimento, 200 bgs.
Starches, etc. : dextrin, (N.Y.) 400 bgs., (Holl.) 50 bgs. ; farina (Jp.), 592 bgs. ; maize (N.Y.), 620 bgs. 11,398 cs. 75 brls.
Talc (Fr.), 695 bgs.
Wax, becs' (E. Af.), 200 pkgs. 120 bgs.
Wax, carnauba (S. Amer.), 54 bgs.
Wax, paraffin (N.Y.), 2,195 bgs. 500 cs. 4,533 brls. 300 pkgs.

Liverpool

(Dec. 8 to 14).

Bronze powder (Can.), 12 cs.
Chemical products, etc.:
Acetic acid (Can.), 202 brls.
Argol (It.), 158 cks.
Calc. borate (S. Amer.), 1,200 bgs. 3,942 sks. 5,493 bgs.
Cobalt oxide (Can.), 79 cs.
Potash salts (Holl.), 6,293 bgs.
Soda caustic (S. Amer.), 638 bgs.
Soda nitr. (Chile), 16,507 sks. 10,444 bgs.
Sulphur, (U.S.) 879 sks., (Sic.) 3,462 bgs. 34 brls.
Tartar (It.), 8 brls.
Tartaric acid (It.), 50 kgs.
Cloves (E. Af.), 4,033 bls.) (stems) 900 bls.
Drugs, crude, etc. :
Cinchona (Mollendo), 277 bls.
Liquorice (Sic.), 164 cs.
Liquorice-root (Sic.), 150 bgs.
Manna (Sic.), 2 cs.
Dyes, dyeing and tanning materials, etc. : chestnut ext. (It.), 400 cs. 70 cks. ; extract, tanning (It.), 37 cks. ; quebracho ext. (S. Amer.), 1,350 bgs. ; sumac, (It.) 430 bgs., (Sic.) 3,680 bgs. ; wattle bark (Aust.), 2,219 bls.
Gums, resins, etc. : acacia (P. Sudan), 1,520 bgs. ; copal, (E. Af.) 10 bgs., (Belg.) 1,310 bgs. ; resin, (Fr.) 1,421 pkgs., (U.S.) 1,750 brls.
Honey (Chile), 102 brls.
Isinglass (S. Amer.), 155 bgs. 5 cs.
Lead, white (Can.), 276 brls.
Lithopone (Holl.), 80 cks.
Magnesite (Tky.), 2,900 tons
Mineral white, (Norw.) 1,150 bgs., (Fr.) 700 bgs.
Oils, essential, (Holl.) 8 cs., (Sic.) 16 cs. 36 × ½ cs. ; turpentine (U.S.), 135 brls.
Oils, fixed : coconut (Aust.), 900 cks., (Holl.) (acid) 1,950 brls. 1,605 cks. ; olive (It.), 470 cs. ; palm, (W. Af.) 5,364 cks. (acid), (Holl.) 242 brls.
Seeds : almonds, 400 bgs. 500 cs. ; caraway (Holl.), 100 bgs. ; cotton, (W.I.) 214 bgs., (S. Amer.) 14,185 sks. 5,747 bgs., (E. Af.) 2,915 bgs., (Alex.) 200 tons, (Belg.) 902 bgs. ; fenugreek (Moroc.), 358,415 kilos. 514 pkgs. ; ground-nuts (W. Af.), 3,955 bgs. ; mustard (Sic.), 500 bgs. ; palm kernels (W. Af.), 40,734 bgs. 2,651 tons, (Fr.) 132 bgs.
Soapstone (Norw.), 10 bgs.
Spermaceti (Cbile), 8 cs.
Starches, etc. : maize (Holl.), 1,000 cs. ; rice (Holl.), 500 cs.
Wax, carnauba (Para), 375 bgs.
Wax, paraffin, (U.S.) 100 brls. 99 sks., (Holl.) 15 cs.

Grimsby

(Dec. 6 to 9).

Kainit (R'dam), 150 tons ; soda chlorate (Belg.), 40 cks. ; tannic acid (Belg.), 6 cks.

Hull

(Dec. 6 to 12).

Barytes, (R'dam) 24 cks., (Sp.) 97 brls. ; dyes, aniline (Belg.), 385 cks. 8 tins 8 cs. ; egg yolk (Ch.), 519 cks. ; liquorice paste (Smyr.), 200 cs. ; lithopone (Holl.), 708 cks. ; olive oil (Swe.), 26 brls. ; oxalic acid (Norw.), 15 cks. 4 cs. ; peppermint (R'dam), 125 cs. ; potash salts (kainit), 200 tons ; seeds : almonds, 70 cs. ; caraway (Belg.), 30 bls. ; copra (Philip. Is.), 3,500 tons ; cotton, (E.I.) 74,666 bgs., (Alex.) 4,253 tons ; soya, (Jp.) 53,290 bgs., (Ch.) 600 bgs. ; starch, rice (Holl.), 100 cs. ; sumac (It.), 650 bgs. ; turpentine (Swe.), 55 cks. ; valonea (Smyr.), 215 tons ; zinc oxide (Belg.), 40 brls.

Manchester

(Dec. 8 to 11).

Acacia, gum (Alex.), 200 bgs. ; anthracene (Fr.), 100 bgs. ; dextrin (U.S.), 1,095 bgs. ; emetic tartar (Fr.), 60 cs. ; glucose (N.Y.), 21,817 brls. ; resin (U.S.), 2,000 brls. ; vaseline (N.Y.), 28 brls. ; wax, paraffin (N.Y.), 2,209 brls.

Newhaven

(Dec. 9 to 13).

Chemicals (Fr.), 220 pkgs. ; drugs (Fr.), 3 pkgs. ; perfumery (Fr.), 26 pkgs.

Southampton

(Dec. 8 to 11).

Bovinine (N.Y.), 224 cs. ; bronze pdr. (N.Y.), 29 cs. ; buchu (Cape), 18 pkgs. ; casein(Aust.), 400 bgs. ; coconut oil (Aust.), 180 cks. ; drugs, (N.Y.) 257 pkgs., (Fr.) 220 cs. ; extract, tanning (Fr.), 20 cks. ; perfumery (Fr.), 14 cs. ; vanillin (N.Y.), 13 pkgs. ; wattle bark (Natal), 3,200 bls. ; (ext.) 3,434 bgs.

The German Nitrogen Industry.

At the recent general meeting of the Farbwerke, formerly Friedr. Bayer, in Leverkusen, the director, privy commercial councillor Bayer, made some interesting statements regarding the German nitrogen industry. He stated that for many years prior to the war the Badische Anilin and Soda Works in Ludwigshafen had been engaged in experiments with a view to utilising the nitrogen of the air for the manufacture of fertilisers and of nitric acid. It succeeded in solving this problem by the combustion of nitrogen from the atmosphere by high tension electrical currents, a process which was carried out in Norway, as it was not applicable in Germany. For this reason this concern acquired in 1908 Prof. Haber's process for the manufacture of ammonia, which consists in combining atmospheric nitrogen with hydrogen under high pressure. Prof. Bosch succeeded in perfecting the technical side of this process to such an extent that the works at Oppau, the first to be erected, were able to produce in 1913 a total output of 35,000 tons of ammonium sulphate annually. The results were so encouraging that the works were immediately enlarged so as to be able to produce annually 150,000 tons of ammonium sulphate, an amount equal to 30,000 tons of nitrogen. During the war, owing to the stoppage of supplies of Chile saltpetre, the Government repeatedly demanded an extension of the works, until they were able to produce a total of 100,000 tons of nitrogen. In consequence of the repeated attacks by enemy aeroplanes on the Ludwigshafen works the German Government induced them to erect a second factory in Merseburg, which was undertaken in 1916. These new works were constructed for an annual output of 30,000 tons of nitrogen, but in the same year the Government demanded an extension of the works, sufficient to produce 130,000 tons of nitrogen. In 1918 a further increase in output, amounting to 70,000 tons of nitrogen, was deemed urgently necessary. A loan was granted by the Government for the erection of these works. At present the output of the Ludwigshafen works is suffering in consequence of the inferior quality of the war substitutes used as materials, and of the disinclination to work prevalent among the workmen. Nevertheless, it is hoped that the total output for last November will amount to 10,000 tons of nitrogen, and provided that the necessary coal and coke are obtainable a further regular increase in output during the coming months is expected.



Costing System for Dispensing.

SIR,—Prompted by curiosity aroused by the two excellent articles on this subject published in the *C. & D.*, December 13, I have examined the actual figures of management of my own mixed suburban pharmacy, and arrive at the following conclusions: That for dispensing (not Insurance dispensing) to be as profitable as the ordinary mixed trade (including photographics) a charge of 2*s.* 6*d.* is necessary for the average mixture. As this highly skilled work should be more profitable, and to allow for a decided increase of salaries, which must be met in the near future, the average price must be 3*s.* A typical example would be:

Cost of ingredients (some alcoholic)	9*d.*
Cost of container	3*d.*
Overhead charges	4*d.*
Wages	8*d.*
Profit—25% on cost	6*d.*
	2*s.* 6*d.*

This is based on present-day wages—estimating my own (full-time) at 6*l.* per week—an average of three prescriptions per hour for each dispenser (which rate of dispensing I can personally confirm as the average). I find the average charge for such a mixture is still 1*s.* 6*d.* No wonder chemists' shops are being rapidly closed up or transferred to companies who can afford to stand a loss in their dispensing departments. Another reform which merits immediate attention is adequate remuneration for Sunday and other "after-hours" attendances. I suggest the discontinuance of "open-shop" at these times and a fee of 6*d.* for opening for each customer requiring urgent medicines, etc. The "urgency" may be considered sufficiently proved by the customer being willing to pay for the services. Controlled articles and proprietary medicines, it seems, would perforce have to be excluded from the extra fee, but if other articles are purchased at the same time the fee could be claimed with safety. These purely business reforms can only be adequately dealt with by a Trade Union of Master Pharmacists, as proposed by Mr. Hugo Wolff.—Yours faithfully,

Manchester. A. A. AUGER, M.P.S.

Pricing Reform.

SIR,—In spite of the numerous discussions and the correspondence in regard to retail prices, it is evident that some pharmacists are still selling at figures which, to say the least, do not yield an economic return. Only this week I had a lady present a 3-oz. bottle to be filled with liquid extract of cascara, which she stated that she had purchased in two separate towns recently for 1*s.*, the labels of the respective pharmacies being on the container, and I have no reason to suppose that she was making a misstatement. In view of the fact that in the wholesale list for December the current cost is quoted at 4*s.* 6*d.* a lb., it is obvious that it cannot be retailed at 4*d.* per oz. and at the same time leave a margin for overhead expenses and give an adequate profit. In addition to the actual sale, she also engaged me in quite ten minutes' discussion as to the price, and whether there were different strengths of the drug, the usual dose, etc., which, as I was very busy at the time, was well worth the 1*s.* for the time spent, without supplying goods as well. People who price their goods at such rates always remind me of a man I once interviewed with respect to purchasing a small business, the net profits of which he stated to be 250*l.* I elicited the fact that he had not included his own salary before arriving at this figure, so that if he had valued his services at 4*l.* a week his actual profit was 50*l.*, and not 250*l.* On pointing this out to him, his reply was: "Well, I have to be here, anyway," whereat I promptly presumed that he might be taken ill or incapacitated, and have to employ a manager, and would he state his net profits in such an event; but he would not argue, so I left. In the same way, when pricing goods for retail sale, so many working proprietors omit entirely to allow for their own wages, on the ground that they are there anyway; and it is unfair to their fellow-pharmacists who charge on economic principles, as a customer who pays varying figures at different pharmacies has every excuse to complain to a Profiteering Tribunal. Another petty worry is frequently caused by the return of bottles. Thus, if you charged 6*d.* per oz. for cascara and supplied a bottle as well, at the present time worth 2*d.*, this gives 8*d.* Now, if the customer brings back the bottle to be refilled the charge is 6*d.*, but if it is returned as an empty you would only allow 1*d.* This has given me a good deal of trouble at different times, as some customers are either naturally or wilfully dense as to the difference between refilling a bottle with the same medicament and taking it back as second-hand to be washed and cleaned.

Yours faithfully,

RETURNED BOTTLE. (22/129.)

Profiteering Act Persecutions.

SIR,—As an example of panic legislation the Profiteering Act is surely one of the worst. In a town not far from London a chemist was reported to the Committee. In an interview with the chairman, who is a lawyer, the chemist asked upon what standard were they acting, and what were the methods of procedure on the part of the Committee. The chairman replied that he did not know. They were waiting instructions from the Board of Trade. Assumption—tradesmen are all criminals until they prove themselves honest.—Yours truly,

COMMON JUSTICE. (132/15.)

SIR,—The profiteering judgments seem to be narrowing down to the basis on which the profit is fixed, and most of the Tribunals appear to estimate the percentage of profit on cost. This is, of course, contrary to the custom of the trade, and I should think that it could be proved that in most businesses the profit is reckoned on the selling price. As proof of this the fact could be brought forward that many firms invoice their goods at the retail figure and deduct the trade discount from the total, and again in other callings, such as the drapery trade, valuations for sale are made at selling prices and a discount, generally about 40 per cent., taken off to arrive at cost. It is, however, a hopeful sign that the Board of Trade have realised, as is shown by their letter to the Maidstone Chamber of Commerce (*C. & D.*, December 13, p. 50), that a retailer may lose by selling at current prices as well as gain; as a matter of fact, he is more likely to lose, as he cannot very well be dearer than his competitors, even if he bought at a high rate. If, on the other hand, he has bought well there is no reason why he should not reap the benefit of his business foresight and the interest on his outlay. If the authorities could now be induced to allow a retailer to recover his expenses where the complaint has been proved to be frivolous and unfounded, the whole Act would be on a much firmer basis.

Yours faithfully,

S. F. (124/66.)

Chemical Mnemonics.

SIR,—Will you allow me to supplement Mr. A. Thomas's note on chemical mnemonics (*C. & D.*, December 20, p. 76)? If, after moistening the platinum wire with hydrochloric acid and then with sulphuric acid, he proceeds to apply the B.P. flame (blowpipe), he will be able always to find barium when present, no matter what there is there besides, for barium sulphate being soluble in strong and hot sulphuric acid, the peculiar green tinge is sure to make its appearance as soon as sodium, potassium, and lithium have been dispelled by the hot blast. Sodium chloride and lithium chloride are easily separated from each other by hydrochloric acid, which precipitates the former but not the latter. Pass the gas through the aqueous solution of the two, and the precipitate is sodium chloride, etc., and the filtrate the lithium chloride.—Yours faithfully,

JULIUS JUNIUS (91/6).

Subscribers' Symposium.

Appreciations.

"The *C. & D.* seems to become more indispensable every year."—*E. W. R.* (249/6).

"I find the *C. & D.* still as good as ever, and could not afford to be without it."—*H. M.* (213/37).

"I need hardly say that as an old subscriber to the *C. & D.* I find it of great and increasing value. I am eager each week to scan its pages."—*J. H. T.* (100/3).

"I have pleasure in renewing my subscription for the *C. & D.* As the years go on, and they are now many, I find your journal more interesting and helpful."—J. Bell.

"I wish to acknowledge the great pleasure I have ever had in the *C. & D.*, and also my indebtedness for advice and assistance you were ever ready to give in a difficulty."—*W. R.* (125/72).

Preparation for Golfers' Hands.

Can you or any of your readers tell us what preparation a golfer uses to keep his hands moist during cold weather? A customer says he used to get a preparation from the golf house, but cannot get it now. He has tried our usual skin preparations without success.—*J. M.* (107/18).

Cleaning Shop-soiled Sponges.

I note in the *C. & D.*, November 29, p. 98, writes *A. S. R.* (218/33), that a correspondent asks how to clean shop-soiled sponges. Perhaps if you could find space for the following he might find it useful: Soak the sponges in a solution of

Potass. permang.	ʒiv.
Aq.	ʒxxxij.

for a few minutes. Wash well, and immerse in

Sod. hyposulphite	ʒiv.
Ac. hydrochlor.	ʒiv.
Aq.	ʒlxx.

Again wash well, and dry.

Artificial Horn.

J. H. D. (243/21), referring to the reply to an inquiry in the *C. & D.*, December 6, p. 88, states that he has had two years' experience in the manufacture of a British galalith. The casein has to pass through a No. 90 sieve from the grinding mill. A representative mixing would be made by adding 40 c.c. of a mixture of formalin 250 c.c., water 2,000 c.c. to 133 lb. of casein, and dye solution 12 to 14 litres. For a white composition zinc oxide is added. This takes about twenty minutes to mix, but is not plastic. It has to pass through a machine consisting of a conical revolving worm in a cylinder, with jackets for hot and cold water. It is then forced through iron sieves into a nozzle, and comes out in a round cable like solid rubber. This is cut off of different lengths, according to whether rods or sheets are to be made. The pieces are then pressed, first hot and then cold. Our correspondent offers to send fuller information if required.

Legal Queries.

Aloes (125/27) asks whether it is necessary to employ a solicitor to effect the winding up of a private limited company. [It is not essential to engage the services of a solicitor in connection with the winding up of a company.] "Aloes" also wishes to know whether the widow of an Irish druggist, who is sole director of a limited company, can carry on the business in her own name and use the title "pharmaceutical chemist" provided she employs a pharmaceutical chemist as manager. [As a limited company, but not on her own account.]

A. E. (127/45) holds his business premises under a tenancy agreement which provides for the termination of the tenancy, upon November 11 of any year, by one year's notice. The landlord, prior to November 11 last, intimated that the rent of the premises would be raised as from May next. Is the increase in rent enforceable? [Until the existing tenancy has been terminated, in accordance with the terms of the agreement, by one year's notice expiring upon November 11, the rent of the premises cannot be increased without "A. E.'s" consent.]

Virx (123/27) has, since 1916, been the weekly tenant of certain premises in Ireland. He has just received from his landlady's solicitor a notice increasing the monthly rent from 13*s.* 4*d.* to 16*s.* 8*d.* per month, and also requiring him in future to pay the poor rate hitherto paid by his landlady. Do we advise him to contest the validity of the notice? [The nature of the premises is not disclosed, but if it is a dwelling-house, and the rent is 13*s.* 4*d.* per *month*, the provisions of the Increase of Rent and Mortgage Interest (War Restrictions) Act, 1915, apply, and the rent cannot be increased, except in certain circumstances, until six months after the termination of the war, which has not yet officially occurred. It seems probable that the increase in rent is not enforceable, and we advise "Virx" to consult a local solicitor with a view to contesting the notice.]

Miscellaneous Inquiries.

J. E. C. (113/66).—Black Boot Polish.—The formula you refer to was modified as follows in later editions of "Pharmaceutical Formulas":

Carnauba wax	ʒx.
Beeswax	ʒxx.
Caustic-soda solution (27 p.c.)	ʒiv.
Oil of turpentine	ʒlx.
Nigrosin (oil-soluble)	ʒv.
Water	Cong. j.

Melt together the waxes and the caustic-soda solution, and stir till homogeneous. When the mass has partly cooled, add the turpentine, in which the nigrosin has been previously dissolved. Lastly, add gradually the water, which should be almost boiling.

A. M. P. (118/29).—Hair-fixing Cream.—See *C. & D.*, September 27, p. 96.

G. W. (122/60).—The solvent method is the only satisfactory one we know of for removing rubber from waterproof fabric.

J. D. (124/27).—There has been no edition of Quain's "Dictionary of Medicine" since 1902. There is not, so far as we are aware, any work which takes the place of Quain.

F. W. (124/67).—The formula for B.I.P.P. is given in *The Chemist and Druggist Diary*, 1918, p. 69, and fuller particulars of the method of preparation in The Chemist and Druggist, February 23, 1918, p. 147.

A. D. (121/42).—Mail Order Business.—An article on doing business by post was given in the *C. & D.*, January 17, 1912, p. 165. Cody's "How to do Business by Letter and Advertising" (Constable, 5*s.*) is also a useful guide.

W. D. (121/41).—(1) Neuritis Paint.—The following is the kind of application to which you refer. It is used for neuritis and sciatica by painting it on the skin:

Camphor,		
Chloral hydrate	aa.	ʒiij.
Menthol		ʒj.
Ether		ʒj.

Misce.

(2) A formula for the liniment of the American type is given in *The Chemist and Druggist Diary*, 1919, p. 87.

Retrospect of Fifty Years Ago.

Reprinted from "The Chemist and Druggist," Dec. 15, 1869.

"The Lancet" on the Pharmacy Act.

Whilst we are on the subject of the Pharmacy Act, let us remark that no legislation can absolutely prevent accident or the misuse of poisons. The restrictions as to the sale of poisons could not frustrate the evil purposes of any respectable man or woman who is known personally to any seller of drugs. If, as suggested, no poison is to be sold save after prescription by a medical man, how can that prevent the criminality of the person who by such means obtains possession of a deadly drug? What the Pharmacy Act has done, and we speak on good authority, is to considerably diminish in some districts the sale of remedies into whose composition opium and the like enter, by little shopkeepers, hucksters, and others. The law is, of course, still frequently evaded; but some impression for good is being made on the dissemination amongst the vicious and the ignorant of dangerous remedies. The wholesale houses who supply small shopkeepers can best tell to what extent this benefit has accrued. Lastly, there is a very general opinion gaining ground amongst those who were inclined to grumble at the institution of a stiff examination as the portal through which all are to enter the pharmaceutical calling, that it is bearing ample and satisfactory fruit.

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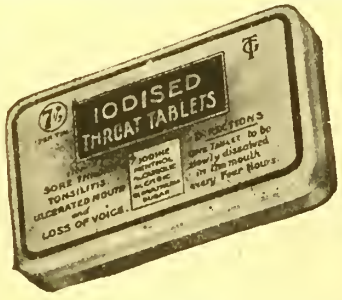
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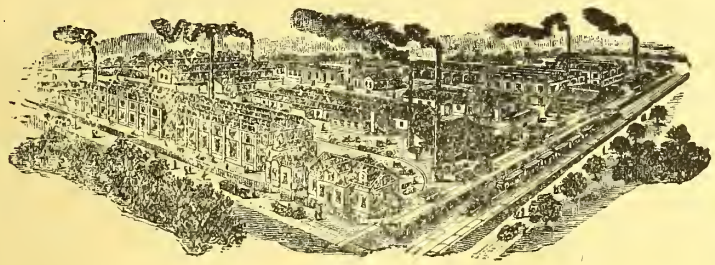
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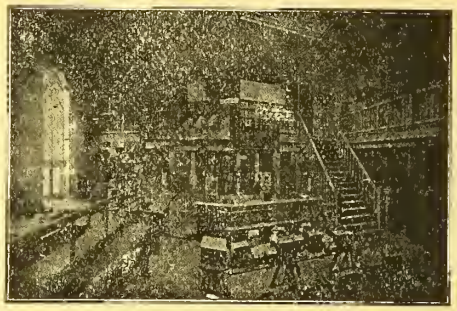
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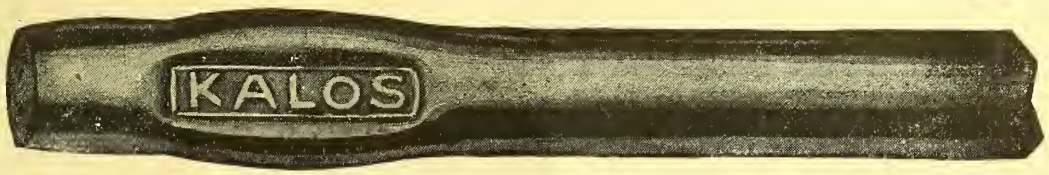
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Inquiries are solicited for this article of **British Manufacture**, and buyers may rely that for quality and price, it will meet any competition.

Other Grades

Petroleum Jellies, White Bases, &c.

Samples and prices on application.

"OLEUM DEELINÆ," a certain cure for Eczema.

Phone: 186 Bootle. Wires "Cestrian Liverpool."

GUARANTEED PURE

OLIVE OIL

Finest Cream Pharmaceutical

Wholesale Only.

LEON FRENKEL

10-11 LIME STREET, LONDON, E.C. 3.

ARGENTUM NUCLEINATE
½-oz. and 1-lb. bottles.

ASPIRIN
SUPER P.B. QUALITY.
AND 5-GRAIN
TABLETS
5/- per lb.

Absolutely pure and equal to Cream Tartar 100 %.
MAPLE CREAM
Soda Pyrophosphate
For use in the baking trade and other dietetic purposes

KREMOFOS
$CaH_4(PO_4)_2$
A British Product equal to Cream Tartar 98 p.c.
Fully Warranted under Food and Drugs Acts.

SILVER PROTEINATE
(Protargol)
P.G.V.
British Make

Cable Address: "SELGOG LONDON." Telephone: 2215 London Wall
ESTABLISHED 1870.

JOHN LORIMER,
10 CITY ROAD, LONDON, E.C. 1.

STYPTIC PENCILS
Stop flow of blood at once
Retailed at 6d. & 1/- each
2/6 doz.
From all Sundry Houses

ADEPS LANÆ,
B.P.
(Lanoline)
Anhydrous and Hydrous.

VITAGEN
Identical with Sanatogen in composition, prices packages, terms, etc
FORMAMINT
Throat Tablets.
Reliable and Genuine.
15/- Doz. Unstamped
18/- Doz. Stamped

LORIMER'S
SANATOGEN
Pure and Genuine.
The All-British and Best.
Prices are
¼-lb. size, 18/- doz.
½ lb. ,, 31/- ,,

NARGENTOL
Contains 24 % Silver, with Protein obtained from Wheat. The most important and satisfactory of all Silver Salts.
In 1 oz. and ½ oz. bottles.

MACHON'S
COMFORTINE
has for Forty Years been the Best & Safest Infants' Preservative.

COMFORTINE contains no Opiates or Dangerous Drugs whatever.

During teething it is a real Baby's friend.

PREPARED BY
Machon's Comfortine Ltd.
Coalville, LEICESTER.
Fixed Minimum Price: 1/3 PER BOTTLE.

Cephos REGD
For NEURALGIA, HEADACHE, RHEUMATISM and INFLUENZA.
Write for wholesale terms to
CEPHOS LTD., Blackburn, Lancs.

BETTER THAN GLYCERINE FOR WINTER USE.
MENOLAN
(REGISTERED)
FOR THE HANDS
THE EMOLLIENT THAT IS DIFFERENT
A highly satisfactory Product and a good repeater. Minimum Retail 7½d. per tin. 60/- per gross with 1 dozen Bonus and 2½%, cash in 30 days.
MENOLAN CO. Ltd., BIRMINGHAM
STOCKS ARE HELD BY
S. MAW, SON & SONS, LTD., London.
SOUTHALL BROTHERS & BARCLAY LTD., Birmingham.

YOU STOCK THE GOODS
WE SELL THEM FOR YOU

And this is



how we do it.

CROSBY'S COUGH ELIXIR

IS SELLING NOW BETTER THAN EVER BEFORE.

Our Advertising Campaign this Season is our Greatest.

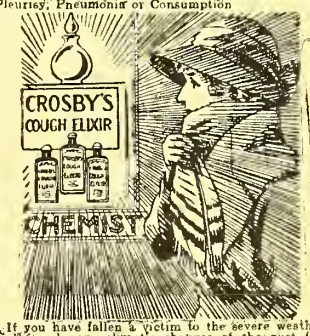
STOCK UP NOW—THE ARTICLE IS RIGHT—THE PUBLIC LIKE IT AND COME FOR MORE, IT'S A GOOD REPEAT-ORDER LINE.

CURE THAT COUGH
With "Crosby's Elixir."

WRITE FOR FREE TRIAL BOTTLE

In some respects the worst winter on record lies before us. Already it has struck severely. The diminished vitality and resistant power of the present season makes people more than ever susceptible to colds and chills.

It is a grave mistake to neglect a cold or chill in times like the present. If you do it may easily become chronic, causing grave catarrhal troubles or develop insidiously into Bronchitis, Asthma, Pleurisy, Pneumonia or Consumption



If you have fallen a victim to the severe weather and treacherous climatic changes of the past few weeks, and are suffering from either a Chill, Cough, Cold, Sore Throat, Lung or Chest Trouble, no matter how slight, it is certain that you are in urgent need of something that will bring you immediate relief. You should write at once for a Free Trial Bottle of

"CROSBY'S COUGH ELIXIR."

A trial will convince you of its wonderful curative powers. It will help you quickly to free yourself from—

1. **Dry Tearing Cough**
2. **Difficulty in Breathing**
3. **Pain between the Shoulder Blades**
4. **Pain in Chest or Lungs**
5. **Nasal or Gastric Catarrh**
6. **Inflamed or Relaxed Throat**
7. **Clogging and Sticky Phlegm**

and ward off more dangerous developments of these conditions.

Send your name and address on the Coupon Form below, and a **FREE TRIAL BOTTLE** will be immediately forwarded. When you experience its efficacy you will do as so many others have done, make "Crosby's Cough Elixir" your ever-ready friend for all Throat, Lung and Chest Troubles. It is sold by the best Chemists everywhere, and can be purchased at Boot's, Timothy White's, Taylor's, Lewis and Burrows' Stores at 1s. 3d., or in a much larger size bottle at 2s. If any difficulty it can always be obtained direct free from Dr. Rooke, Ltd. (Dept. 307), Leeds.

FREE COUGH CURE COUPON.

To Dr. Chas. Rooke, Ltd. (Dept. 307), Leeds.

Dear Sirs,

Please send me a trial bottle of Crosby's Cough Elixir.

NAME .....

ADDRESS .....

SEND NO MONEY FOR POSTAGE.

Reduced facsimile of one of a series of Ads. now appearing in the leading national newspapers.

DR. CHAS. ROOKE LTD., LEEDS.

Pharmaceutical Specialists

Antiphlogistine is not a side line with us, not one of many preparations; it is our sole product, upon the perfecting of which our force has concentrated its whole attention for twenty-five years.

When your customer buys Antiphlogistine he obtains the benefit of this twenty-five years of specialising.

There is no such thing as "the same as," or "just as good as"

Antiphlogistine
TRADE MARK

Order a £2 quantity from your Wholesaler to-day, **Carriage Paid**, and save 5%.

The Denver Chemical Manufacturing Company
41 St. Ann's Road - - - LONDON, E. 3

NOSTROLINE
TRADE MARK REG'D. N.379.
NASAL SPECIFIC

Look to your Stock!

Place orders without delay direct or through Wholesale.

Protected at face value, 1/3
Price: 1 doz. 11/9, 3 doz. 33/9, 1 gross 135/-

Carriage Paid. Terms: Cash Net.



"NOSTROLINE"
Prevents and Cures
COLD IN THE HEAD,
NASAL CATARRH,
HAY FEVER ETC.
Protects against Infection.

OVERSEAS CORRESPONDENCE INVITED

HAROLD E. MATTHEWS & Co.
CLIFTON, BRISTOL.

46% Profit

A good return of profit on a widely advertised article is assured to all Chemists who stock

Chocoloids

The Cure for Constipation

Chocoloids are supplied to the retailer in two sizes—at 12/- and 24/- per dozen. With each dozen small size is given FREE two small tins, and with each half-dozen large size one large tin. Retail price 1/3 and 2/6 respectively.

Chocoloids Advertising is National.

Daily and weekly newspapers, weekly and monthly periodicals all carry Chocoloids advertising to the extent of over ten million copies per month. Chocoloids are already sold when you exhibit our showcard.

Send an order to-day. Show material supplied free.

The Chocoloid Co.,
Stirchley Laboratories - Birmingham.

THE ANGLO-FRENCH DRUG CO., Ltd.

238a Gray's Inn Road, London, W.C. 1.

Telephone: HOLBORN 1311. Telegrams: "AMPSALVAS LONDON."
New York: 1270 BROADWAY. Montreal: DANDURAND BUILDING. Paris: RUE CLAUZEL. Bombay: P.O. BOX 460.
WEST-END DEPOT: MODERN PHARMACALS (Managing Director, J. G. GORDON, M.P.S.), 48 Mortimer St., W. 1
Telephone: MUSEUM 564.

AMBRINE

Ambrine is the *Only Authorised Preparation* of Dr. Barthe de Sandfort. We are compelled to state this, as there are various imitations.

OVER 30% PROFIT **OVER 30% PROFIT**



SHOW THESE ON YOUR COUNTER, THE SALE IS CERTAIN.

Special Visit to Military Hospitals in France.

"Here we saw some wonderful cases of burns treated with Ambrine; the effect seems to be practically to provide the patient with a new skin, to say nothing of a fresh complexion."
—*The Nursing Times*

PURE OXIDE OF TIN AND TIN METAL

STANNOXYL

Treatment of Staphylococcal Affections.

(An Oxide of Tin and Tin Metal Free from Lead!)

"A Scientific production the value of which has been studied very closely. The effect is very prompt; from the second day of treatment the pain is relieved.

In the majority of cases definite results are obtained within five or six days; it is seldom necessary to take the full ten days' treatment, and relapses are unknown.

FULL PARTICULARS ON APPLICATION.

GÉRAUDEL'S PASTILLES.

THE
Anglo-French Drug Co., Ltd.,
having been appointed
Sole Wholesale Agents
for
Géraudel's Pastilles
have placed them on the
P.A.T.A. List at 2/- per box.
Wholesale Price, 18/- per doz.

GÉRAUDEL'S PASTILLES.

VALERIANATE

"Gabail"

ODOURLESS. ***TASTELESS.***

Each 100 grammes of Valerianate "Gabail" contains:—

Extract of Valerian (French Codex)	...	10 grms.
Acid Valerianic	... ...	3 ,,
Ammonium Carbonate	... ...	q.s.

Whilst possessing the full medicinal value of VALERIAN the odour is entirely suppressed.

In bottles containing 125 c.c. per bottle **3/4**
,, ,, ,, 250 c.c. ,, ,, **6/-**
,, ,, ,, 500 c.c. ,, ,, **10/6**

Dose:—One teaspoonful.

ELIXIR BROMO-VALERIANATE "GABAIL"

In bottles containing 210 c.c. per bottle **3/9**

Dose:—One tablespoonful.

FREE SAMPLES ON APPLICATION.

A SPA IN THE HOME



EUSALAX

A pleasing Mineral Aperient & Tonic.

For sufferers from Rheumatism, Gout, Sciatica, Neuritis, Lumbago, Eczema, Dyspepsia and Constipation.

"EUSALAX" is a careful and scientific combination of the beneficent mineral salts of some of the most famous Continental spas. It is one of the greatest solvents of Uric Acid, a natural stimulant to the liver, kidneys and intestines. and a sure blood purifier.

"EUSALAX" is being extensively advertised and is sure to prove a strong selling line.

Retailed in 1/- boxes: trade terms 7/6 per doz. boxes. (Yielding 60% profit to chemists)
Also Retailed in 2d. packets: trade terms 1/4 er doz. pkts. (Yielding 50% profit to chemists)

GEORGE WALKER & SON, Ltd., Reid St., Bridgeton, Glasgow
(ESTABLISHED 1860)

We invite your attention to the following SPECIAL OFFERS OF SEASONABLE LINES:

New Season's Finest Non-Freezing
NORWEGIAN COD LIVER OIL

Our own Import. 1 gallon **24/-**; 5 gallons **22/-**; barrel **20/-** per gallon.

COD LIVER OIL EMULSION

A perfect product, contains 33⅓% of finest Norwegian Oil. Palatable, inseparable, and easily assimilated and digested.
Winchester **1/6**; 6 Winchesters **1/4**; 24 Winchesters **1/3** per lb.

PARAFFIN. LIQ. B.P.

S.G. ·865/·875 Winchester **1/8**; 6 Winchesters **1/6**; 10 gallons **1/4** per lb.
S.G. ·885/·895 „ **1/10**; 6 „ **1/8**; 10 „ **1/6** „

PETROLEUM EMULSION

Containing 33⅓% Paraffin Liq. S.G. ·890. A "PERFECT" White Emulsion.
Winchester **1/6**; 6 Winchesters **1/4**; 24 Winchesters **1/3** per lb.

SYR. HYPOPHOSPH. CO., B.P.C.

Winchester **1/6**; 6 Winchesters **1/4** per lb.

We only ask you to write for Samples, they and our Prices will do the rest. Also ask for our General Price List.

BROOK, PARKER & CO., Ltd., Manufacturing Chemists
ASHFIELD, BRADFORD, YORKS.

ÉTABLISSEMENTS CHATELAIN,

2 & 2 bis RUE DE VALENCIENNES, PARIS.

Sole Manufacturers of

JUBOL

RE-EDUCATION OF THE INTESTINE.

Constipation, Enteritis, Hæmorrholds, Indigestion, Skin Blemishes, &c.

Price **5/-** per box.

GLOBÉOL

POWERFUL BLOOD TONIC.

Anæmia, Nervous Exhaustion, General Debility, Tuberculosis Convalescence. etc.

Price **5/-** per bottle.

PAGÉOL

POWERFUL URINARY ANTISEPTIC.

Cystitis, Prostatitis, Catarrh of the Bladder, Renal Tuberculosis, etc. etc.

Price **5/-** and **11/-** per box.

JUBOLITOIRES

SCIENTIFIC SUPPOSITORIES

For Hæmorrhoids, Rectitis, Anal Fistula, etc. Anti-hæmorrhagic, Sedative, De-congesting.

Price **5/-** per box.

URODONAL

POWERFUL URIC ACID SOLVENT.

Rheumatism, Gout, Arterio-sclerosis, Stones, Gravel, Sciatica, Neuralgia and all Uric Acid disorders.

Price **5/-** and **12/-** per bottle.

VAMIANINE

New Scientific Preparation for Chronic Skin Affections, Psoriasis, Eczema, Acne, etc.

Price **11/-** per bottle.

SINUBÉRASE

SCIENTIFIC PREPARATION OF LACTIC FERMENTS.

Indicated in Intestinal Disorders, Dysentery, Diarrhœa, Dyspepsia, Enteritis, Typhoid, Skin Eruptions, etc., etc.

Price **5/-** per bottle.

FANDORINE

Metrorrhagia, Dysmenorrhœa and Lactation, Pains, etc. etc.

Price 5/- and 11/- per bottle.

GYRALDOSE.

Antiseptic for local Gynæcological use.

Price 4/- per box (powder)
" 5/- " (tablets)

FILUDINE

SPECIFIC FOR THE LIVER.

Malaria, Diabetes, Cirrhosis, Sluggish Liver, Tuberculosis, etc.

Price **11/-** per bottle.

Heppells

BRITISH AND COLONIAL AGENTS—

Pharmacists & Foreign Chemists, 164 Piccadilly, LONDON, W. 1.

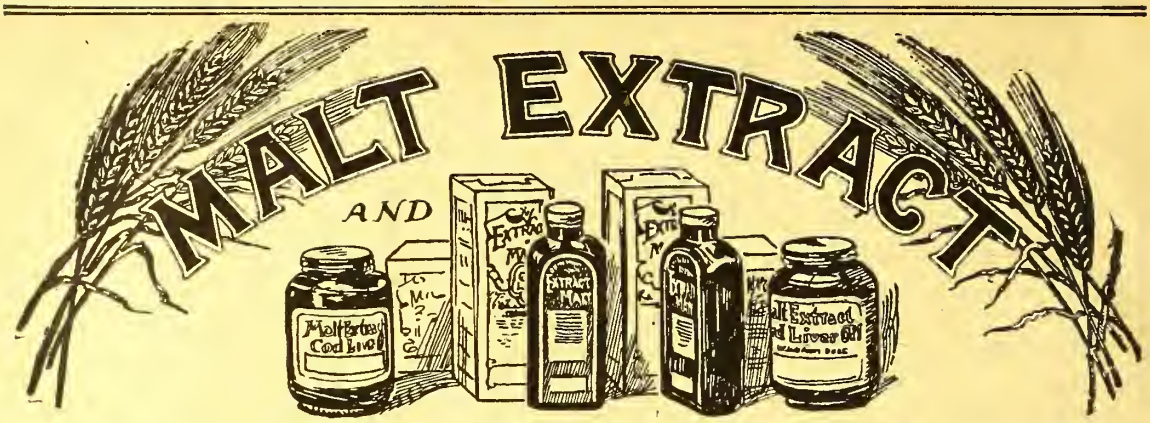
Telegrams: "URODONAL LONDON." Telephone: Regent 192.

AUSTRALIAN AGENT: Mr. BASIL KING, Malcolm Buildings, Sydney, N.S.W.

INDIA (SUB-AGENTS): G. ATHERTON & CO., 8 Clive Street, Calcutta.

Stocked by all Wholesalers. ***Now being largely advertised.***





MALT & COD LIVER OIL

Prepared only from the finest East-Coast Barley, Combined with the best Norwegian Non-Freezing Cod Liver Oil.

Packed in Screw-Capped Jars, Bottles and Tins, holding 1 lb. and 2 lbs. Neatly Labelled and Wrapped. Customer's Name printed on Labels for Orders of 1 gross and upwards.

TELEPHONES: Nitshill—Pollokshaws 14 London—Avenue 5661 (3 lines).

PERRY & HOPE, Ltd.

TELEGRAMS: "Perryope, Nitshill." "Perryope, Lod, London."

NITSHILL, near GLASGOW.

London Office: 1 LEADENHALL STREET, E.C.3.

Telephone: Central 10238.

Telegrams: "Diluggo, Bilgate, London."

CHARLES LANE & SONS

7 & 8 Idol Lane, LONDON, E.C.3

NEWFOUNDLAND
NON-FREEZING
COD LIVER OIL
FINEST - MEDICINAL.

GELATINES
SAMPLES AND QUOTATIONS FOR WHOLESALE QUANTITIES.

Fine Pharmaceutical and Heavy Chemicals.

Extract of Malt
and
Cod Liver Oil

IN BULK, JARS OR TINS.

Prices on application.

THE
BRITISH DIAMALT CO.
BISHOP'S STORTFORD.

Proprietors { H. A. & D. D. TAYLOR
H. D. & C. T. TAYLOR

1919 Jensen's 1919

Ice-refined, New Season's

NORWEGIAN COD LIVER OIL

DELIVERY EX STOCK, LONDON OR HULL

Samples and Prices:

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Agent for Scotland:
Mr. W. B. RODGERS,
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Mr. JOSEPH M. MAIBEN,
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Saint-Raphael

Tonic, Restorative, Digestive Wine.

Known throughout the World, and prescribed in all cases of ANÆMIA, DEBILITY, and CONVALESCENCE, to Young Women, Children and the Aged.

DOSE: One Wine-glass after the two principal Meals.

Recommended by—
PROF. BOUCHARDAT, Professor of Hygiene, Paris Faculty of Medicine.
DR. MACNAUGHTON JONES, London, England.

"For more than thirty years St. Raphaël Wine has been exclusively prescribed, with success, in the Paris hospitals as a pure tonic, by eminent physicians, such as Magendie Rostan Chomel, Velpeau, Requin, Monneret, Trousseau, Grisolle, Laënnec, &c."—*Union Médicale*, May 8 and June 12, 1873.

"The 'Vin de St. Raphaël' is often used for ladies nursing their own children; it is preferable to stout, which creates an unhealthy fat."—*The Lancet*, London, England.

"St. Raphaël Wine is most precious in all cases where it is necessary to give tone to the system, without effort or shock."—DR. C. DES BARRES.

Cie du VIN SAINT RAPHAEL, Valence, Drome, FRANCE.

To be obtained from all Wholesale Druggists.

New Customers every day
for all who stock

WINOX
WINE FOOD



Extensive Advertising is creating a colossal demand for WINOX, the finest Medicated Wine on the market, and the only Tonic Wine selling entirely on merit.

Secure stocks to-day and double your turnover.

WINOX WINE FOOD is a high-class Pharmaceutical Wine, containing all the food elements of wine, prime English beef, malt, and unfermented grape juice, a triumph of concentration without drugs. Complete Analysis on every bottle.

Invaluable in cases of **Influenza**, Anæmia, Neuritis, Gastritis, Neurasthenia, Indigestion, Neuralgia, Nervous Breakdowns, and other Nervous and bodily weaknesses. It is the ideal Tonic for Convalescents.

Write for particulars of this **41% *Profit Proposition*** *to-day.*

WINOX, LTD., RICHMOND, SURREY.

TO USERS and DEALERS in METH. SPIRIT and SPIRIT OF WINE.
FOR QUOTATIONS apply to—

PRESTON'S LIVERPOOL DISTILLERY Co., Ld.

The Largest Makers in the Kingdom.
BANKHALL DISTILLERY, SANDHILLS, LIVERPOOL. Office: 4 India B'ngs, Water St., Liverpool.

PURE ORANGE WINE
A. MILLAR & CO., LTD., DUBLIN

(VINUM AURANTII B.P.) Prepared in strict accordance with the Formula of the British Pharmacopœia. **(Wholesale only)**
London Agent: JAMES STIRTON, 43 GREAT TOWER STREET, E.C.3.

WINCARNIS

Sells readily ALL the time.

COLEMAN & CO., Ltd., Wincarnis Works, NORWICH.

IMPORTANT NOTE TO CHEMISTS WITHOUT LICENCES

It has been established by law that Registered Chemists may sell "Wincarnis with Quinine" *without* a licence.

LOFTHOUSE & SALTMER, Ltd.

Wholesale and Export Drug Merchants,
Manufacturing Chemists

HULL.

INVITE the Trade to take up the following valuable P.A.T.A. Protected Lines, bearing a large Protected Retail Profit, which sell freely and are well known and valued by the Public in many parts of the country.

	P.A.T.A. Protected Retail Price.	Dozen Net.
*LOSALL'S SALT (well advertised), tins	10d.	7/-
* " " " " "	1/7	13/6
* " " " " bottles in cartons	2/-	18/-

Losall's Salt sells so well, surely it must pay Pharmacists to stock such a big profit-bearing protected line.

LOSALL'S COMPOUND SULPHUR SOAP.

A valuable emollient medicated skin soap, especially suitable for use in Eczema. 3 Tablets in a box at 9d. each tablet.

Box.	Doz.
2/3	21/-





The Finest Quality Aerated Waters are made only with the Finest Quality

ESSENCES

BOAKE ROBERTS'

Soluble Essences are of the finest quality and being extremely concentrated are most economical

Lemon	Ginger Ale
Orange	Stone Ginger (Cloudy)
Ginger	Clear Ginger Beer
Raspberry	Kola Champagne
Strawberry	Lime Juice and Soda
Pineapple	Lemon Squash. Vanilla

A. Boake, Roberts & Co. Ltd.
Stratford, London, E15.

ATKINSON & BARKER'S
ROYAL
INFANT'S PRESERVATIVE

ON P.A.T.A. LIST.

Prices and Terms on application to R. BARKER & SON, Ltd.
13 Wesley St., C.-on-M., MANCHESTER.

DOES NOT CONTAIN any SCHEDULED POISON.

BRAND'S ESSENCES
OF
BEEF, MUTTON and CHICKEN

possess great nutritive and restorative powers, being immediately digested and absorbed by the stomach. Although effective stimulants in physical and mental exhaustion, they contain no wine or other deleterious admixture.

BRAND & Co., Ltd., MAYFAIR WORKS, VAUXHALL, LONDON, S.W.

Do You Sell Sister Lauras Food?



The question is often asked nowadays.
The Chemist who does not stock Sister Lauras Food is missing a good line.
Sister Lauras Food is achieving great success as a preparation for weakly babes and for invalids and the aged.
It makes milk digestible and is invaluable in cases of malnutrition.
It is a thoroughly reliable line and one that brings a handsome return.

Price 1/- & 2/6 per tin. *Samples and advertising matter free on application.*

SISTER LAURAS INFANT FOOD CO., Ltd., 156 Vincent Street, GLASGOW.

CHELTINE MILK & MALTED FOODS

No. 1, from birth to five months.
No. 2, from five months onwards.
No. 3 for Invalids, Dyspeptics, the ageds, and those with enfeebled digestion.

Experience is proving, and medical men are testifying to the value of these perfect Foods. Terms and full particulars from

THE CHELTINE FOODS CO., CHELTENHAM.

MALTED FOOD FOR INFANTS
supplied in bulk, or packed with Chemist's own name.

For Terms apply—

WHYSALL'S FOOD CO. Ltd., Grantham.

When consulted about
Diabetic Foods
remember the advantages of the "ENERGEN" Brand.

Prescribed by leading Specialists.
Carry a good profit to the Chemist.
Inquiries invited.

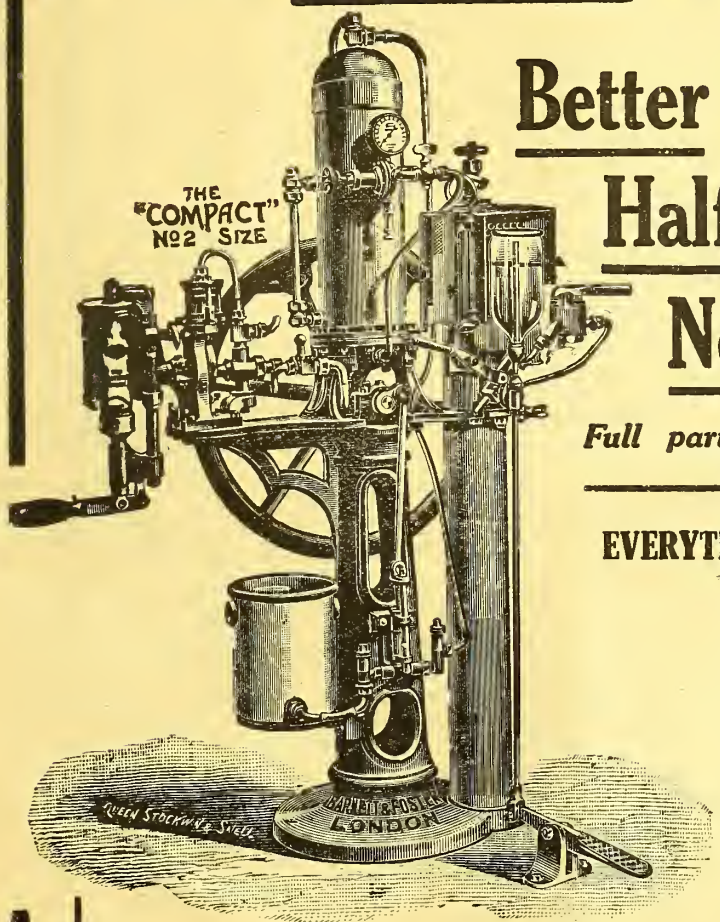
Therapeutic Foods Co.
19c Roundwood Road, Willesden, N.W. 10.

PURE ESSENTIAL
OIL OF HOP.
Singly and fractionally distilled.
HIGHEST CONCENTRATION AND PURITY GUARANTEED.

Prices, samples and information from the distillers:—

WHITE, TOMKINS & COURAGE, LTD.
HEAD OFFICE:
48 Mark Lane, LONDON, E.C. 3.
And at
LIVERPOOL, BELFAST, BOSTON, and TANDRAGEE.

Fill your Syphons at 120 lbs. Pressure



Better Waters
Half Usual Cost
No Breakage

Full particulars on application.

EVERYTHING FOR BOTTLING.

We supply every machine, article and appliance needed for the manufacture of aerated waters. Our lists, including the "Red Club" monthly price list of Soluble and Fruit Essences, Essential Oils, Mineral Water Salts, Colourings, Chemicals, and Drugs, posted free anywhere.

We are also makers of the "London" Syphons, and can supply from Stock.

BARNETT & FOSTER

ENGINEERS

(Proprietors of GALLOWAY BROTHERS),

(Dept. N 2) Niagara Works, London, N. 1.

And at BOLTON, LANCS.

Telegrams: "Drinks London."
" "Soda Bolton."

Telephones: London: North 1605.
" Bolton 545.

No. 265.

SATISFY YOUR CUSTOMERS

The "Fastnet" BANDAGES

In Sealed Cylinders.

Used by Discriminating Medical Men.



The following are a few of the many advantages of the "Fastnet" Bandages over any other Water-dressing Bandages on the market :—

(1) The cloth from which they are made is of even manufacture, very absorbent and heavy texture.

(2) They are tightly rolled by a patent process, the benefit of this will be at once appreciated by the surgeon when applying.

(3) They are cleanly cut and evenly packed.

(4) They are each packed in a sealed cylinder, ensuring cleanliness in use and in storage, and require no further wrapping before sale.

Samples and prices can be had on application to Sole Agents :—

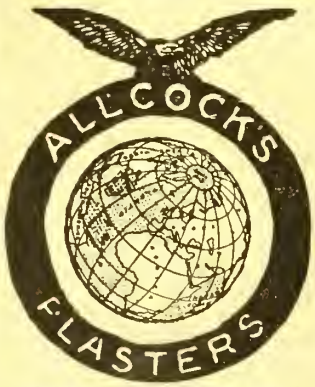
JOHN TIMPSON & CO., Ltd., 104/6 Golden Lane, London, E.C.1

ESTABLISHED 1847.

Allcock's PLASTERS

A REMEDY OF 70 YEARS' STANDING.

Allcock's Plasters
Allcock's Corn and Bunion Plasters
Brandreth's Pills
The Three Reliables.



Prices and Terms on application to

ALLCOCK MANUFACTURING COMPANY
22, Hamilton Sq., Birkenhead, England.

"Sold all round the World."

RELIANCE



Moulded-Seamless Hot Water Bottle

The big profit maker and the most beautifully finished and attractive piece of Rubberware made.

It is moulded in one piece, without seam or join; has no uncomfortable rigid side flanges; has a larger capacity than any other bottle of its size; and has the original patent oval safety neckpiece, which never leaks. Handsome maroon colour.

If you have not yet sold this bottle, write for samples and copies of "Rubberware Sales" Reliance Bulletin Sales Service, which will assist you to increase your sales.

Reliance Moulded-Seamless, price	**7/6**	each retail.
Reliance De Luxe	,, **10/6**	,, ,,
Reliance Baby De Luxe	,, **4/6**	,, ,,

These are the best and fastest selling bottles in the trade. Ladies buy them before all others. Don't fail to see samples at once.

RELIANCE RUBBER COMPANY LIMITED
212-213 Upper Thames Street London. E.C. 4.
Telephone City 2391 (Two lines) Telegrams Doorstop Cent. London

Every *Ronoleke* You Sell makes a Customer for your other Lines.



The fact that the "Ronoleke" Bottle CANNOT leak makes satisfied customers who will have confidence in coming to you for all their other needs. Make sure of your supply of "Ronoleke" Guaranteed Unleakable Hot Water Bottles by ordering through your Wholesale House right away NOW.

They will supply you also with attractive advertising material, and the "Ronoleke" itself will advertise you in every purchaser's home.

Revised Prices.

Protected on the P.A.T.A. List.

Size	Minimum Wholesale Prices to Retailers	Minimum Retail Prices to Public
6″ × 8″	5/3	6/10
6″ × 10″	5/10	7/6
7″ × 10″	6/–	7/9
6″ × 12″	6/2	8/–
7″ × 11″	6/3	8/1
8″ × 10″	6/7	8/6
7″ × 12″	6/9	8/9
6″ × 14″	6/9	8/9

Size	Minimum Wholesale Prices to Retailers	Minimum Retail Prices to Public
8″ × 12″	7/4	9/5
9″ × 12″	7/9	10/–
8″ × 14″	8/–	10/3
10″ × 12″	8/3	10/7
10″ × 14″	9/3	11/11
10″ × 16″	10/1	13/–
12″ × 14″	10/4	13/3
12″ × 16″	11/–	14/2

Your Wholesale House will supply you

SIXTY PER CENT. OF YOUR CUSTOMERS

have Foot Trouble. The chemist is asked to help—relieve. An opportunity for greater service—larger business.

Are you adequately equipped to cope with this demand?

D'Scholls
Foot Comforts

are a permanent correction. Scholl Appliances solve all Foot Problems.

Customers have built our sales. They advertise us. They will YOU. There is also our National Advertising Campaign.

We can offer a splendid proposition! Will you write for it?

THE SCHOLL MFG. CO., LTD.
1-4 GILTSPUR STREET, LONDON, E.C. 1

P.A.T.A. NOTICE.

113 Temple Chambers, E.C. 4.

Dec. 27th, 1919.

The following revised prices are now in force:

Advertised Price.		Minimum Retail Price.	Minimum Wholesale Price.
	"Allenburys"		doz.
2/9	Peptonising Powders	2/9	24/9
9d.	**Frame Food**	9d.	7/3
1/4	" "	1/4	12/9
5/-	" "	5/-	48/-
2/6	" " Cocoa ...	2/6	24/-
2/-	" " Biscuits ...	2/-	19/-
1/4	" " Porridge ...	1/4	12/9
1/9	" " Jelly ...	1/9	16/9

Orders of £2 and upwards, carr. pd., subject to 10% discount if paid by 25th of month following date of invoice.

(Revised prices come into force 1st January, 1920.)

	Grossmith's	doz.
1/-	Soap Tablets	1/- 8/6

(Revised prices come into force 1st January, 1920.)

	Healo Skin Ointment.		doz.
1/3	(stamped)	1/3	11/6
3/-	" "	3/-	29/6
1/3	" " (unstamped)	1/3	8/6
3/-	" " "	3/-	23/6

(Revised prices come into force 1st January, 1920.)

Enamelled Hospital Requisites



HIGHEST QUALITY. PERFECT PACKING.

BRITISH MANUFACTURE.

Write for Catalogue.

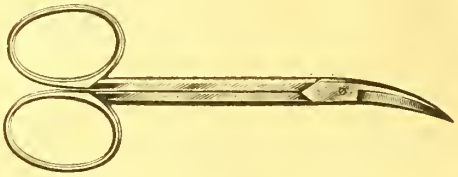
ORME, EVANS & CO., LTD. Works: Wolverhampton, England.
Showrooms—London, Sydney, Capetown.

PURE WHITE INLEAVED ABSORBENT
COTTON WOOL.

1 lb. 1/5½; 8 oz. 1/6½; 4 oz 1/7½; 2 oz. 1/9½; 1 oz. 1/11½ per lb.
Carr. paid, 28 lb. as above. Special prices for 5 cwt. and upwards
Mag. Carb. Levis, B.P., 1/- lb. Mag. Sulph. B P., 24/- cwt. Borax and other Chemicals. Terms—Cash with Order.
J. L. STANSFIELD, Chemist, Boothfold, Waterfoot, nr. Manchester.

A Most Original and Striking Production.
The "Silver Bullet"
POCKET INHALER (Patented)
A quick-selling seasonable line stocked by the leading wholesalers. Retails 7½d., costs 5/- doz.
Wholesale trade supplied by the Manufacturers
W. B. DIXON & CO., 17 Lord St., **Stockport**; or the Sales Agents,
R. ARTON LEECH & CO., 17 Moseley Street, **Manchester.**

"INTRINSIC" Brand
(HIGHEST GRADE)
SURGICAL SCISSORS



Amputating, Dissecting and Veterinary Knives, Symes, Scalpels, Bistouries, Lancets, Chiropodists' Knives, Corn Planes, etc.
John Milner & Co., Orient Works,
36-38 Matilda Street, SHEFFIELD (Est. 1842).

Buy direct from the Manufacturer.
The
Bouverie Seamless Rubber Works

GLOVES, TEATS, SOOTHERS
and every description of seamless goods.

Inquiries invited. *Samples gladly submitted.*

H. NORTHCROFT, 85 Bouverie Road,
STOKE NEWINGTON, N.

Real Good Lines

Pumisope "The Hand Cleaner."

Dry Cloth-cleaning Balls
(All Colours)

Precipitated Chalk
(Powder)

Prepared Chalk
(Powder and Cones)

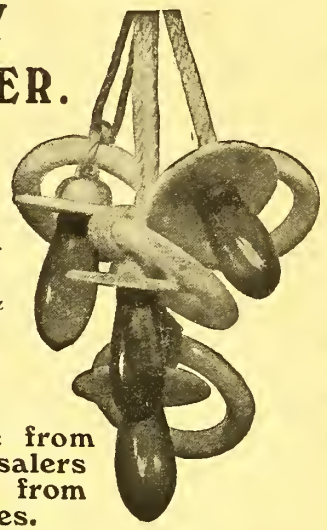
Fancy Boot-top Cleaning Balls
(All Colours)

Magnesia, Rouge, &c.

H. H. HANCOCK Regd. No. 266037 LONDON

HANCOCK'S, LTD.
"The Factory," OLD BATTERSEA, S.W.11.
WHOLESALE: Write for QUOTATIONS.

The "EVERSAFE" BABY PACIFIER.



Patented Everywhere.

Present rates:—

No.
2 4d. line **2/9** doz
2C 6d. ,, **3/2** ,,
2E 6d. ,, **3/4** ,,
3 7½d. ,, **4/8** ,,

Obtainable from all Wholesalers or direct from Patentees.

Sample Order, Three Dozen Assorted:
Send 10/6, post free.

F. SCHUTZE & CO., LTD.,
Black Bull Works, London, N.

PATENT MINERALIZED

INDIA RUBBER

[See p. 429 "C. & D." Diary, 1917.

(Red Mineralized and Arabesque).
SURGICAL, CHEMICAL, DOMESTIC ARTICLES, SYRINGES, ENEMAS, WATER BEDS.
Manufacturers of every description of ***INDIA RUBBER,*** *Wholesale & Export only.*
WM. WARNE & CO., Ltd., 29 Gresham Street, LONDON, E.C. 2.



ELASTIC GUM SURGICAL INSTRUMENTS.



Catheters and Bougies, in Black or Brown Gum, and Finest Silk Web. Specula, Rectal and Œsophageal Instruments, Horse Catheters and Cattle Probangs. Wholesale and Export only. *Price List from the Manufacturers.*

MASON BROS. & CHAPMAN, 107 Whitecross St., LONDON, E.C.1.

J. H. HAYWOOD, Ltd.

Surgical and Athletic Appliance Manufacturers,
Castle Gate, NOTTINGHAM.

Established 1833.



SPECIALITIES FOR WINTER.

SURGICAL ELASTIC HOSIERY, TRUSSES, SUSPENDERS, BRACES, LADIES' & GENTLEMEN'S BELTS for SUPPORT and WARMTH made in Fleecy, Felt, and Chamois, etc.

CHEST PROTECTORS and SLEEPING SOCKS, ELASTIC and LEATHER WRISTLETS, ARM PIECES, ELBOW PIECES and KNEE CAPS for Football, Golf and Hockey.

DRUGGISTS' SUNDRIES, INDIA RUBBER HOT WATER BOTTLES and COVERS, ELASTIC WEB BANDAGES, all lengths, widths and qualities.



LOWEST QUOTATIONS AND SAMPLES ON REQUEST.

SURGICAL DRESSINGS.

ABSORBENT
GAUZES, WOOLS, LINTS
(Plain and Medicated)
GAUZE TISSUE.

Telegrams:
"Carnebros, London."
Telephones:
Dalston 3560 (2 lines).

BANDAGES
OPEN WOVE, CREPE,
DOMETTE, FLANNEL,
PLASTER OF PARIS.

CARNEGIE BROS.

WOOD WOOL
PREPARATIONS,
GREY CARDED WOOL,
JUTE TOW.

227/229
Essex Road,
LONDON, N. 1.

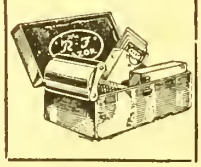
HOSPITAL SHEETINGS,
JACONETS,
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Contractors to H.M. Government, Military & General Hospitals, &c.

They will all ask for the **R.-F.** RAZOR.

ALL BRITISH MADE.

21/- COMPLETE.



WHAT IT IS——

A Safety Razor that embodies an invention worked on an entirely new principle. It does not scrape over the face, it ROLLS. Thus its action is delightfully smooth and soothing to the skin, giving a perfectly clean and pleasant shave.

Rollo-Foam SAFETY RAZOR

WHY YOU MUST STOCK IT——

It is being extensively advertised and is selling well.

It is the best safety razor ever invented.

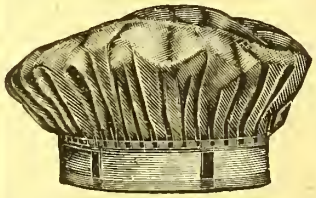
It is most excellent value.

Price List sent on application.

LEWIS REGNARD & CO.,
90 Lower Thames Street, E.C. 3.

RUBBER BATHING CAPS

Latest styles and shades 9/- doz. and upwards.



WHOLESALE & EXPORT

To facilitate output a special discount will be allowed on all orders received before 1st Feb. 1920.

Hot water bottles, air cushions, beds, enemas, etc.

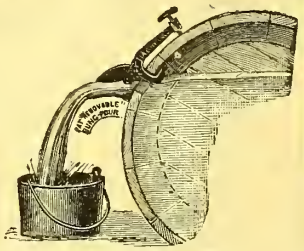
ALLIED RUBBER & LEATHER Co.,
19 Cannon St., Manchester.

Wells' Removable Bung Pour

(PATENTED).

For emptying Casks without Pump, Tap or Stillage. Applied to and removed from any cask instantly. All waste and mess prevented. More rapid in action than a pump. Will fit any ordinary cask from 20 to 60 gallons.

Does not damage the cask.



A. C. WELLS & CO., 90 MIDLAND ROAD, ST. PANCRAS, N.W.1 London

"ASTRA" & "TOURNIQUET" BRANDS

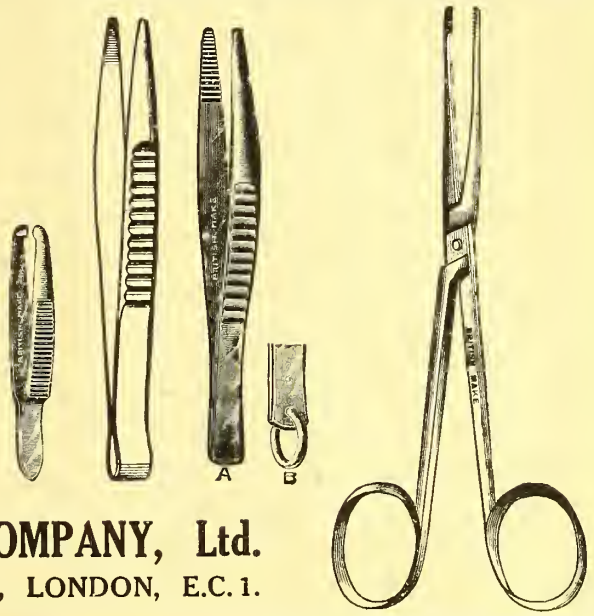
FINE GRADE SURGICAL SUPPLIES

Are well known and appreciated in all Colonial and Overseas Markets.

TOURNIQUET BRAND FINE GRADE SURGICAL SUPPLIES. GUARANTEED BRITISH MADE.

SURGICAL FORCEPS
of every Description
for all Markets.
INQUIRIES INVITED.

Made in London.

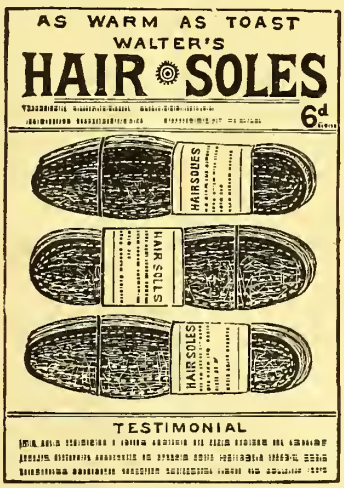


GENERAL SURGICAL COMPANY, Ltd.

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WALTER'S HAIR SOLES

are again in the market



BOOK ORDERS EARLY.

SEND FOR OUR PRICE LIST.

7/6 per doz. pairs.

BOURNE, JOHNSON & CO.

34 & 35 FURNIVAL STREET, LONDON, E.C.4.
Druggists' Sundriesmen.
ESTABLISHED 80 YEARS.

RUBBER CORKS

IMPORTANT

It is not generally known that Corks made of Rubber are to-day 25% cheaper, are more serviceable, reliable, and give greater sealing facilities than any other kind. We specialise for the requirements of the Chemical Trade, and manufacture all standard sizes.

	Drab Ammonia Proof.	Drab Acid Proof.
Prices for 8-oz. Bottles ...	3/3	4/3 per gross
,, 16-oz. ,, ...	4/9	5/9 ,,

Other sizes—Prices on Application.

SPECIAL PRICES FOR LARGE QUANTITIES.

We also manufacture BUNGS for ½-gall. and 1-gall. Jars.

RED & BLACK RUBBER CORKS of the Best Quality for Laboratory use.

Inquiries Solicited.

Garden City Rubber Company

Manufacturers of all Rubber Specialities for Medical, Chemical & Laboratory use,

Letchworth, Herts.

Telephone: Letchworth 54. Telegrams: "Rubber Letchworth."

THE ALL-BRITISH

THREE STAR BATTERY

DEFIES FOREIGN COMPETITION



MADE IN ENGLAND WITH BRITISH CAPITAL AND BY BRITISH LABOUR.

Ask your Factor always for *"THREE STAR,"* or write direct to the Manufacturers.

THE SUNLIGHT MANUFACTURING CO., LTD.
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Telegrams—"SUMABATRY, TOTTLANE, LONDON."

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Telegrams: FORSHAPCO, WESTCENT LONDON

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LABELS, CARTONS
SHOWCARDS,
SHAMPOO &
CORN SILK
ENVELOPES,
ETC. ETC.

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AGENTS FOR THE REGISTRATION OF TRADE MARKS.

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GREAT TURNSTILE,
HIGH HOLBORN,
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2,800 ONLY BRITISH MADE Standard Size (6½ × 1½ in.) ELECTRIC TORCHES

Complete with "Volex" Batteries and Jewel Metal Filament Bulbs.

27/- per dozen.

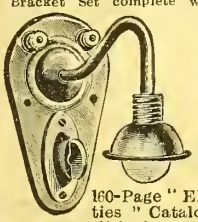


Best Quality **POCKET LAMP BATTERIES** British Made
"State" 7/6 doz. net.
"Volex" 8/6 doz. net.

Most reliable torch at a popular price, thoroughly strong and well constructed, fitted with patent, permanent switch. Complete with best "Volex" Batteries and jewel Metal Filament Bulbs. No. X15, **27/-** doz. Retail value, **4/6** each.
Also supplied in high-grade finish for best-class trade with nickelled fitting, complete with best "Volex" Batteries and Jewel Metal Filament Bulbs. No. X 9, **33/-** doz.

High-grade, large size. All-metal case, ebonised body and nickelled mounts. Fitted with patent, permanent switch. Complete with best "Volex" Batteries and Jewel Metal Filament Bulbs No. X 8, **36/-** doz.
Also supplied with extra large lens (2½ in.) giving a wide range of illumination. Complete with best "Volex" Batteries and Jewel Metal Filament Bulbs. No. X 2 . **42/-** doz.

The "Challenge" Bracket Set.
Registered Design. British made. Excellent Bracket Set complete with switch and terminals as illustrated. Takes miniature screw bulbs. Packed in strong boxes of ½-doz. each. The box is attractively labelled, suitable for window display.
Price **22/6** doz net



160-Page "Electrical Novelties" Catalogue, just published, post free on request



The "Multum" Torch Accumulator.
Suitable for Home and Export. Unspillable, clean, lasting and reliable. 12 hours' light at a charge. No heavier than dry battery refill.
2-Volt Type. Size 4¾ × 1½ in. Weight 6 oz."
Fits the standard large 2-cell case. Price **4/-** each net.
Complete with "Million" torch case and special metal filament bulb. Price **6/4** each net.
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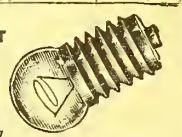
NEW SEASON'S LIST illustrating full range of Electrical Pocket Lamps, Torches, Hand Lamps, Medical Coils, Bells, etc., on application.

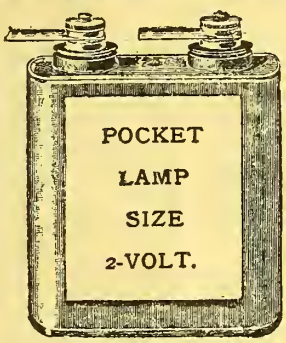
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SALFORD MANCHESTER

Electrical POCKET LAMPS. British made
Fitted with 1¾ in. Lens, Patent Switch, Metal Filament Bulb, and best Battery.
For full range of Prices see new List.

	No.	Doz. Net.
Popular quality, assorted covers, polished fittings	310	18/-
Medium quality, leatherette covers, nickelled fittings	325	Doz. Net. 20/-
Superior quality, best leatherette covers, & heavily nickelled ...	324	Doz. Net. 26/-
De Luxe quality, selected leather covers, and heavily nickelled	423	Doz. Net. 36/-

Best quality **METAL FILAMENT Flashlamp Bulbs**
British made.
2·5 and 3·5 volts
Price **3/-** doz. net
Avoid cheap bulbs which ruin the refill.





ACCUMULATORS

SIZES.

2-volt	... 1½ amp.
4 ,,	... 10 ,,
4 ,,	... 20 ,,
4 ,,	... 40 ,,
4 ,,	... 60 ,,
4 ,,	... 80 ,,

Write for Trade List.

MOHAWK CYCLE CO., Ld.
Alexandra Road, Hornsey. London.

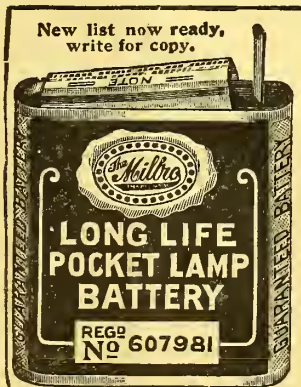
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Cut Pieces. Cartons for Packing. Waxed Papers. Greaseproof Papers. Waxed Corrugated. Tinted Corrugated. Strong "Outers."

Complete Packing Schemes. Keenest Prices.
Inquiries Welcomed.

IMPORTANT. Address all letters to:
I. M. RICHARDSON, *Manager,*
GUILDHALL CORRUGATED PACKING MATERIALS CO.
Guildhall Buildings, Navigation Street, **Birmingham.**

New list now ready, write for copy.



The Coal Shortage and cutting down of street lighting will enable you to sell more

BATTERIES

Buy only those with a reputation for
1—LONG LIFE. 2—RECUPERATIVE QUALITIES. 3—GUARANTEE.

All Batteries bearing this Label can absolutely be relied on.

No. 3 guaranteed 3 months
No. 4 ,, 4 ,,
No. 6 ,, 6 ,,

Packed in cardboard outers containing 3 dozen Batteries.

14 different patterns in Pocket Lamp cases in stock. Write for prices and sample collection.

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Telegrams: "Sourcrout (ALD), London." Telephone: Avenue 3737.

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OFFICES:
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FOR EXPORT & HOME TRADE.

WOOD BOXES AND TRAYS OF EVERY DESCRIPTION

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Benches, Tables and other Joinery

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Specialities:

LINDERMAN JOINTED SHOOKS.

CHEAP, NON-RETURNABLE, COLLAPSIBLE CASES FOR HOME TRADE.



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"WELLINGTON"
KNIFE POLISH

The original and only reliable preparation for Cleaning and Polishing Cutlery, &c.

In Canisters, 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

JOHN OAKEY & SONS, LIM.

MANUFACTURERS OF

Emery Cloth, Black Lead

GLASS PAPER, &c.

"WELLINGTON" KNIFE POLISH
The Original Preparation for Cleaning Cutlery. Canisters, 1*d.*, 2*d.*, 3*d.*, 6*d.*, 1*s.*, 2*s.* 6*d.*, and 4*s.* each.

SILVERSMITHS' SOAP
For Cleaning & Polishing SILVER, ELECTRO-PLATE, etc. Tablets, 6*d.*

"WELLINGTON" BLACK LEAD
In Solid Blocks, 1*d.*, 2*d.*, and 4*d.* each, and 1*s.* Boxes.

Polishing Paste, Furniture Polish, Plate Powder, Rouge, Urn Powder, Steel Polish, Crocus, Tripoli, Brunswick Black.

Westminster Bridge Road, LONDON, S.E. 1.

MORRIS, LITTLE & SON, Ltd., DONCASTER

SHEEP DIPS Poisonous and Non-Poisonous **of all kinds.**
DISINFECTANT SOAPS of all kinds.
Sole Proprietors and Manufacturers of
PHENOID (formerly called PHENYLE).

DISINFECTANTS of all kinds, including LYSOL SUBSTITUTE and High Co-Efficients.

Largest Makers of Non-Poisonous Sheep Dip in the World.

Established Over 100 Years



A typical example of our Work.

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Each Shopfront we build remains a visible exposition of that constant superiority, typical of the Parnall Service which enables us to make the above claim.

We have erected Shopfronts for the most successful houses the world over.

Don't forget that Goods well shown are half sold.

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ESTABLISHED OVER 100 YEARS

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Telephone-City. 1102.

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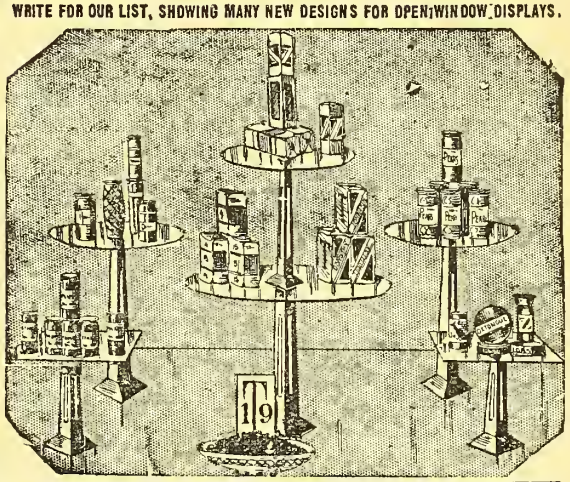
SHOPFITTERS D & N SUNDRIES DECORATIVE & NEEDFULL

W. DAVIS

100 WOOD ST., E.C. 2
'Phone: City 8220.

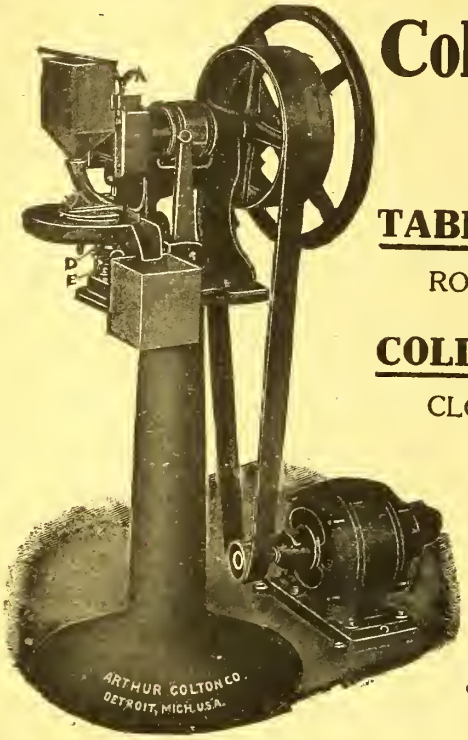
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Set 118.—Consisting of 2 18 in. OAK PEDESTALS, 3 12 in. ditto, and 1 24 in. ditto, with 1 24×18, 2 18×12, and 1 16×10 in. OVAL, and 2 16×10 in. OBLONG PLATE GLASS SHELVES and 1 WILLOW BOWL. **PRICE 84/- COMPLETE.**

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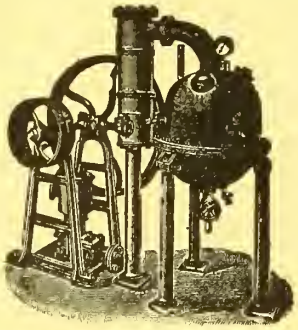
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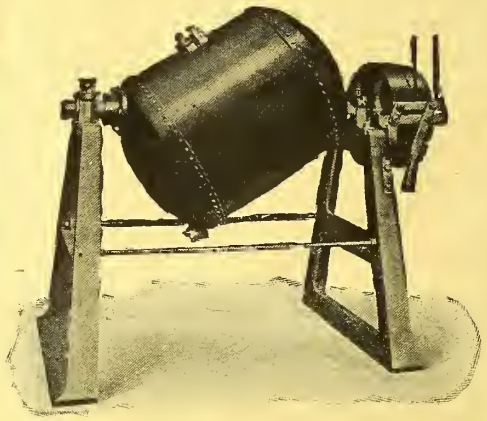


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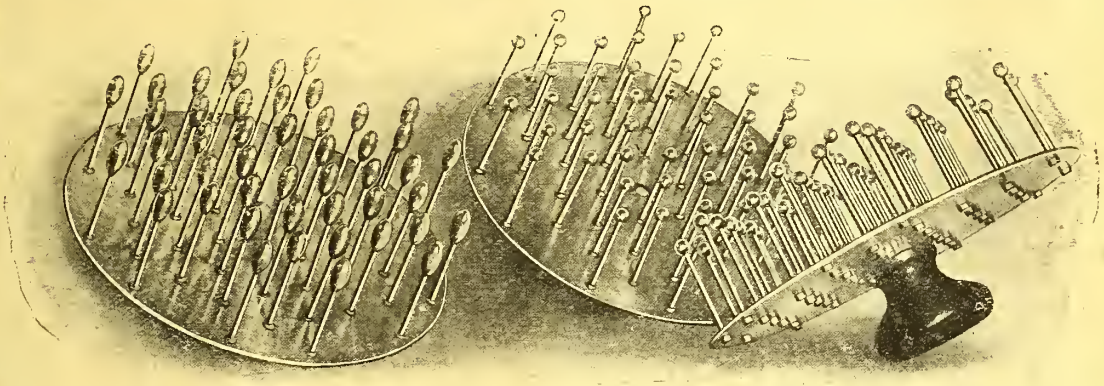
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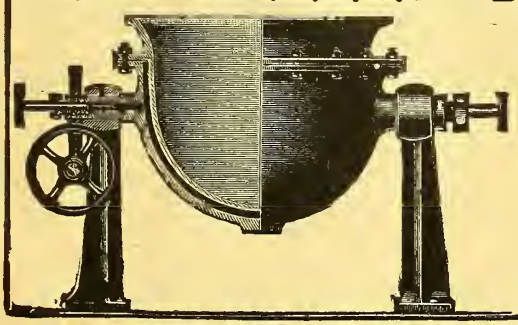
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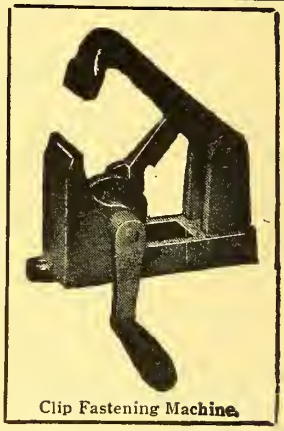


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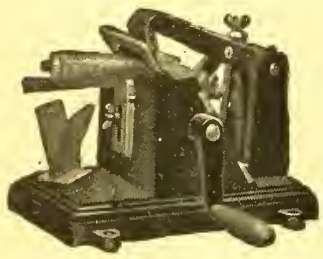
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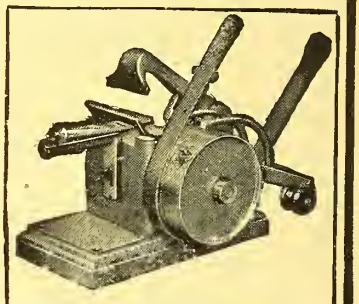
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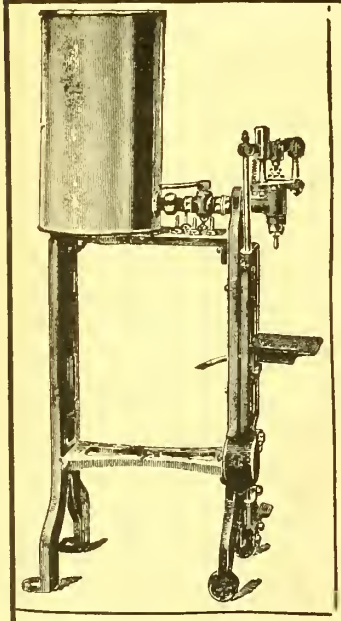
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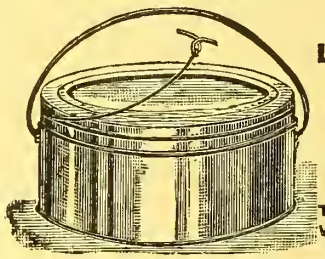
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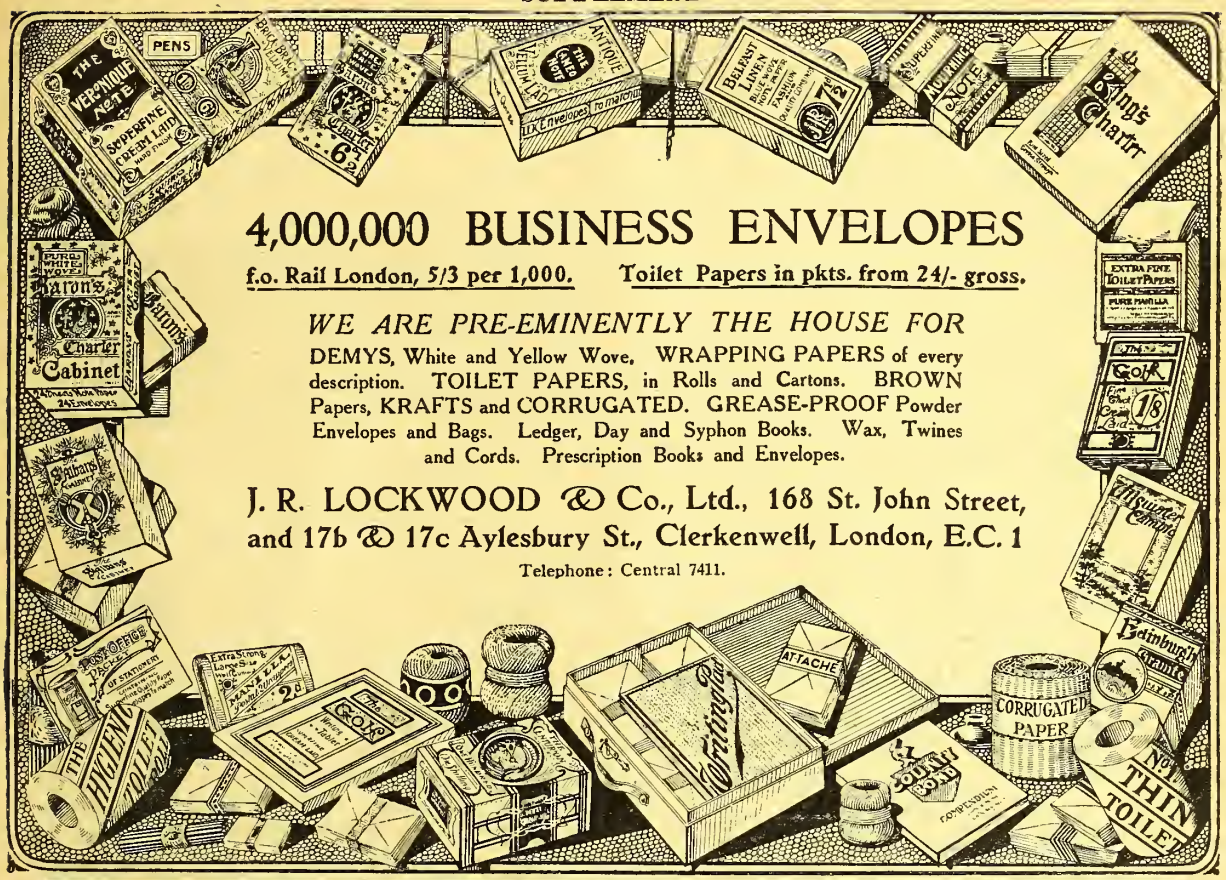
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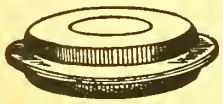
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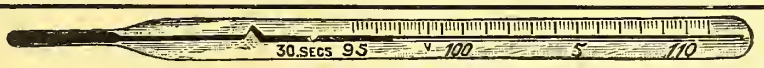
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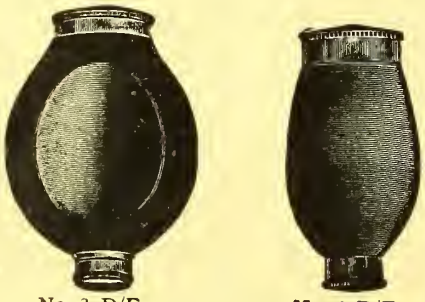
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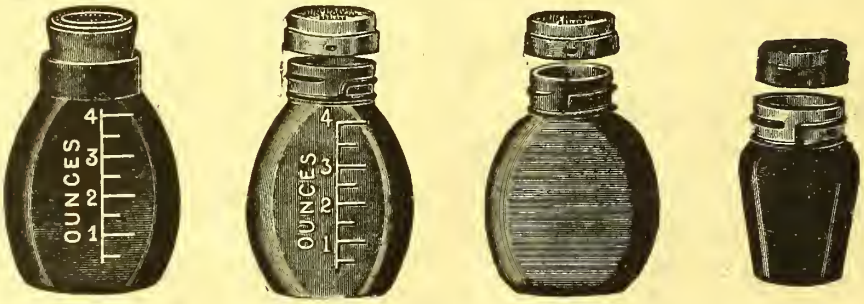
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